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MANPOWER AVAILABILITY, NAVY ENLISTED PROJECTIONS -- FY 1979-198--ETC(U)  
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DECEMBER 1979

**MANPOWER AVAILABILITY  
NAVY ENLISTED PROJECTIONS--FY79-85**

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(1) **MANPOWER AVAILABILITY  
NAVY ENLISTED PROJECTIONS-FY79-85**

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Reviewed by  
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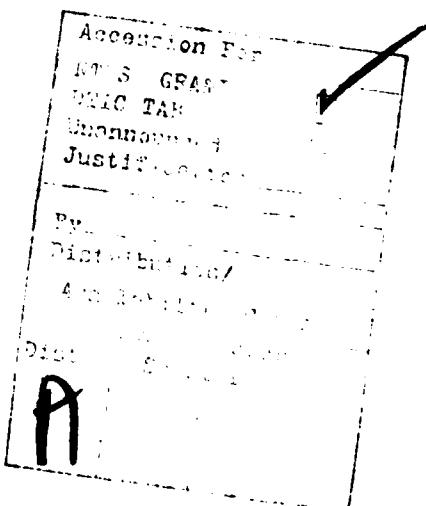
## **FOREWORD**

This effort has been conducted under subproject Z1170-PN.05, Reducing Manpower Costs Through Better System Design, and the sponsorship of the Deputy Chief of Naval Operations (OP-01). The objective of the subproject is to develop procedures to incorporate hardware/software/personnel tradeoffs and cost benefit alternatives in all stages of system design.

This effort was conducted to provide decision makers in manpower planning and in hardware development offices with information regarding current and projected availability of manpower for pay grades within selected Navy ratings through FY 1985. This information will assist these decision makers in estimating the demand for personnel of particular ratings and pay grades and in determining the probability of whether personnel with those qualifications will be available to meet the demands of new hardware acquisitions. If this information is available early in the design process, hardware developers will be able to focus on and compensate for specific manning problem areas through hardware design actions. This report, which is the second on manpower availability, supersedes the earlier issue, NPRDC Special Report 79-11 of January 1979.

Appreciation is expressed to personnel of the CNO Long-Range Manpower, Personnel and Training Planning Branch (OP-110), especially to CDR Lee S. Mairs, for assistance in acquiring the manpower forecast data.

**DONALD F. PARKER**  
Commanding Officer



## SUMMARY

### Problem

Personnel in their second enlistment, which comprise the bulk of the Navy's experienced personnel pool, are in seriously short supply for many ratings. As a result, many of the Navy's systems are being manned and maintained by personnel with skills and experience far below that required for optimum system performance.

### Objective

The objective of this effort was to identify those Navy ratings and pay grades in seriously short supply. This knowledge will enable hardware developers to consider the impact of manpower limitations when evaluating various design options.

### Approach

Manpower availability data were developed using manpower forecasting data developed and maintained by the Chief of Naval Operations (CNO) (OP-110) and requirements data based on CNO (OP-11) estimates.

### Results and Conclusions

Projections through fiscal year 1985 indicate that manpower shortages, especially in pay grades E-5 and E-6 (Second and First Class Petty Officers), will continue to plague the Navy. The hardware development community can assist in reducing the impact of these shortages by actively seeking to develop systems that can be operated and maintained by fewer and less skilled military personnel.

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## INTRODUCTION

### Problem

Navy ships and systems are manned by a wide variety of enlisted personnel of different ratings (occupations) and rates (skill levels). Training individuals for these different positions requires substantial time, instructor personnel and facilities, and financial investment.

While the Navy has been reasonably successful in recruiting first-term enlistees, retaining these personnel beyond their initial enlistment has continued to be a problem. Second-term enlistees, which are the primary input into the Navy's experienced personnel pool, are in very short supply for many ratings, especially in pay grades E-5 and E-6 (Second and First Class Petty Officers). As a result, many Navy systems are being manned and maintained by personnel with skills and experience below that required for optimum system performance.

### Purpose

The purpose of this report was to identify those Navy ratings and pay grades in severely short supply. This knowledge will enable hardware developers to consider the impact of manpower limitations during the concept formulation and subsequent stages of system development.

This report, which is the second on manpower availability, supersedes the earlier issue, NPRDC Special Report 79-11 of January 1979.<sup>1</sup>

## APPROACH

### Data Sources

Projected enlisted manpower availability data through fiscal year 1985 were obtained from the Chief of Naval Operations (OP-110). These data were generated by the Force Structure Projection Computer Model (known as FAST), which was developed by the Navy Personnel Research and Development Center and implemented in the OP-01 organization. The FAST model simulates the flow of active duty enlisted personnel through the Navy force structure, using such historical data as number of enlistments, promotion flow, and attrition rates. The model also is used to project the implications of proposed changes in various manpower policy aspects such as pay, enlistment periods, training, and other benefits upon the future manpower pool. In this way, it is able to project the size and composition (rating and pay grade) of the enlisted force that will be available in future years.

Projected enlisted requirements data through fiscal year 1985 were obtained from the Chief of Naval Operations (OP-11) and are based on the Navy's total manning requirements. Requirements are projected using information contained in ship and shore manning

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<sup>1</sup>Koehler, E. A. Manpower Availability--Navy Enlisted Projections--FY78-FY84 (NPRDC SR 79-11). San Diego: Navy Personnel Research and Development Center, January 1979.

documents, planned ship and hardware system acquisitions and losses, and historical sources. Requirements data presented in this report were established by the Navy and reflect manning levels needed to fully meet the operational and support needs of the service. This differs from authorization, which is based upon a manpower ceiling imposed by Congress. Authorization reflects the constraints of budget limitations imposed on each service and other factors that may be imposed to limit the size and composition of the force.

#### Procedure

This report includes only those Navy ratings that are experiencing a shortfall of 20 percent or more within any pay grade from E-4 through E-7 for any year from FY79 through FY85. Within this constraint, requirements and available manning data are presented for the following 24 ratings:

1. AC--Air Controlman
2. AQ--Aviation Fire Control Technician
3. AW--Aviation Antisubmarine Warfare Operator
4. BT--Boiler Technician
5. DP--Data Processing Technician
6. DS--Data Systems Technician
7. EN--Engineman
8. ET--Electronics Technician
9. EW--Electronics Warfare Technician
10. FTB--Fire Control Technician (Ballistic Missile Fire Control)
11. FTG--Fire Control Technician (Gun Fire Control)
12. FTM--Fire Control Technician (Surface Missile Fire Control)
13. GMG--Gunner's Mate (Guns)
14. GMM--Gunner's Mate (Missiles)
15. GMT--Gunner's Mate (Technician)
16. GSE--Gas Turbine System Technician (Electrical)
17. GSM--Gas Turbine System Technician (Mechanical)
18. HT--Hull Maintenance Technician
19. MT--Missile Technician
20. OS--Operations Specialist
21. RM--Radioman
22. STG--Sonar Technician (Surface)
23. STS--Sonar Technician (Submarine)
24. TM--Torpedoman's Mate

#### **RESULTS**

Manpower availability data for the 24 selected ratings are tabled in the appendix. These tables present, for fiscal years 1979 through 1985, combined data for pay grades E-1 through E-3 (strikers); separate data for pay grades E-4 through E-9; combined data for pay grades E-4 through E-9; and, finally, combined data for pay grades E-1 through E-9. Data within the cells for each pay grade represent:

1. The number of personnel projected to be in that pay grade at the end of the fiscal year.

2. The average length of service (LOS) of those personnel.<sup>2</sup>
3. CNO estimates of the number of personnel required in that pay grade at the end of the fiscal year.
4. The difference between projected and required personnel, expressed as a percentage.

Each table is accompanied by a graph, which presents manpower availability data for personnel in the E-4, E-5, E-6, and E-7 pay grades. These four pay grades are comprised of personnel who are most likely to be involved in the actual operation and/or maintenance of shipboard systems. These graphs indicate, for each of these pay grades:

1. The number of personnel who will be available at the end of fiscal years 1979 through 1985.
2. The number of personnel needed to meet the CNO requirement estimates.
3. The difference (surplus or shortfall) between available and required personnel. These graphs have all been prepared to the same scale, except for the Hull Maintenance Technician (HT),<sup>3</sup> to allow comparisons of surpluses or shortfalls of the different ratings. The vertical scale (number of personnel) has been cut at various points to permit a single page presentation for each rating. The ET rating is the one exception; its graph required two pages due to the size of the population it represents.

Table 1 is a summary of manpower availability data for the 24 selected ratings expressed as a percentage above or below requirements. These data indicate that, during the next 5 years, there will be substantial shortages of skilled personnel for particular ratings and pay grades. For example, during FY80, shortages are expected to occur in all ratings at the E-5 level except two (FTM and GSE). At the E-6 and E-7 levels, all reported ratings will experience shortages.

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<sup>2</sup>In many ratings (i.e., DS, ET, EW, FTB, FTG, FTM, GSE, GSM, MT, STG, STS), the average LOS for personnel in pay grades E-1 through E-3 is greater than that for those in pay grade E-4. This is due to the more rapid promotion of persons who attend "A" school.

<sup>3</sup>The graph for the HT rating was slightly reduced to permit single page presentation.

Table 1  
Manpower Availability Data Expressed as Percent  
Above or Below Requirements

Pay Grade	AC	AQ	AW	BT	DP	DS	EN	ET	EW	FTB	FTG	FTM
FY79												
E-4	-31	-33	-15	-15	-26	+23	-33	+13	+18	+17	+21	+15
E-5	-38	-8	-15	-26	-22	-12	-13	-8	-4	-8	+2	+24
E-6	-19	-6	-6	-20	-6	-27	-6	-6	-28	-6	-21	-42
E-7	-4	-3	-5	-1	-6	-10	+8	-3	-3	-4	-2	-3
FY80												
E-4	-19	-38	-9	+8	-14	+21	-22	+7	+17	+33	+12	+12
E-5	-38	-7	-27	-21	-18	-15	-14	-7	-5	-7	-11	+21
E-6	-18	-7	-7	-20	-7	-32	-7	-7	-23	-9	-23	-38
E-7	-4	-4	-4	-4	-4	-4	-4	-4	-4	-3	-4	-6
FY81												
E-4	-20	-39	-3	+13	-26	+27	-23	+13	+33	+49	+32	+15
E-5	-26	-7	-22	-14	-9	-13	-10	-19	-18	-7	-28	+6
E-6	-20	-7	-7	-17	-7	-37	-7	-7	-16	-9	-32	-35
E-7	-4	-4	-4	-3	-4	-5	-5	-4	-4	-2	-3	-8
FY82												
E-4	-12	-22	+10	+13	-30	+21	-18	+16	+43	+64	+23	+15
E-5	-18	-3	-17	-12	-7	-5	-9	-22	-19	+0.4	-3	+3
E-6	-21	-6	-6	-14	-6	-44	-6	-6	-12	-20	-44	-41
E-7	-5	-5	-5	-4	-5	-5	-5	-5	-5	-2	-4	-8
FY83												
E-4	-10	-12	+13	+15	-29	+24	-20	+17	+43	+81	+23	+23
E-5	-11	-2	-7	-11	-8	+3	-4	-24	-17	+13	+4	+0.8
E-6	-23	-6	-6	-10	-6	-56	-6	-6	-9	-35	-50	-50
E-7	-5	-5	-5	-5	-5	-5	-5	-5	-5	-2	-3	-7
FY84												
E-4	-3	-8	-5	+15	-29	+32	-15	+18	+45	+87	+21	+21
E-5	-14	-2	-19	-15	-14	+14	-9	-12	-2	+7	+8	+19
E-6	-21	-9	-9	-17	-9	-52	-9	-9	-13	-30	-51	-49
E-7	-6	-6	-6	-6	-6	-7	-6	-6	-6	-7	-5	-7
FY85												
E-4	-4	-2	-7	+15	-29	+31	-16	+16	+47	+98	+25	+19
E-5	-8	-1	-9	-14	-13	+14	-4	-13	-2	+6	+4	+19
E-6	-19	-8	-8	-16	-11	-49	-8	-8	-9	-27	-52	-50
E-7	-6	-6	-6	-6	-6	-6	-6	-6	-6	-15	-6	-6

Table I (Continued)

Pay Grade	GMG	GMM	GMT	GSE	GSM	HT	MT	OS	RM	STG	STS	TM
FY79												
E-4	+13	+37	-38	+49	+12	-28	+24	-23	-5	+33	+53	-43
E-5	-8	-16	-23	-2	-54	-16	-8	-10	-8	-5	-7	-8
E-6	-9	-57	-23	-33	-6	-21	-6	-36	-6	-15	-12	-6
E-7	-5	-4	+1	-81	-82	-3	-3	-3	-4	-3	-7	-7
FY80												
E-4	+7	+40	-26	+67	+33	-24	+76	-32	-1	+18	+47	-36
E-5	-7	-12	-20	+45	-31	-23	-7	-11	-7	-16	-7	-8
E-6	-7	-54	-23	-68	-45	-20	-7	-32	-7	-19	-7	-7
E-7	-5	-4	-4	-67	-46	-4	-4	-4	-4	-4	-4	-4
FY81												
E-4	+13	+11	-20	+39	-7	-30	+143	-41	-6	+30	+41	-38
E-5	-7	-7	-15	+55	+6	-24	-7	-18	-7	-25	-7	-7
E-6	-7	-40	-21	-67	-66	-20	-7	-25	-7	-32	-7	-7
E-7	-5	-3	-4	-70	-48	-4	-4	-5	-4	-4	-4	-4
FY82												
E-4	+13	+1	-12	+24	-5	-30	+189	-40	+1	+30	+43	-31
E-5	-3	-15	-1	+98	+49	-26	-3	-24	-3	-15	-3	-3
E-6	-6	-37	-22	-65	-67	-19	-7	-15	-6	-42	-6	-6
E-7	-5	-3	-4	-70	-55	-5	-4	-5	-5	-5	-5	-5
FY83												
E-4	+2	-2	-2	+16	-12	-32	+230	-42	+4	+32	+44	-26
E-5	-2	-23	+0.2	+99	+39	-26	-2	-24	-2	-10	-2	-2
E-6	-6	-34	-18	-53	-54	-16	-6	-10	-6	-48	-6	-6
E-7	-5	-3	-4	-72	-60	-5	-4	-5	-5	-5	-5	-5
FY84												
E-4	-5	+5	+9	+26	+37	-31	+238	-36	+13	+28	+18	-26
E-5	-2	-21	-2	+72	+26	-31	-2	-26	-2	-5	-2	-2
E-6	-9	-22	-15	-43	-39	-11	-9	-9	-9	-51	-15	-9
E-7	-7	-5	-6	-66	-53	-6	-6	-6	-6	-6	-6	-6
FY85												
E-4	-10	+2	+15	+42	+39	-31	+273	-37	+15	+32	+19	-22
E-5	-2	-20	-2	+54	+14	-29	-1	-20	-1	-6	-2	-1
E-6	-8	-19	-10	-26	-20	-11	-9	-8	-8	-54	-11	-8
E-7	-7	-5	-6	-63	-49	-6	-6	-6	-6	-6	-6	-6

## **CONCLUSIONS AND RECOMMENDATIONS**

The hardware development community can help to reduce the impact of the projected shortages of skilled personnel in the middle pay grades by developing hardware systems that can be operated and maintained by lesser skilled personnel in the lower pay grades. In doing this, the hardware designer should consider design options or procedures that would either simplify task performance or reduce the number of skilled personnel required.

NAVPERSRANDCEN has recently published an engineer's guide to assist in meeting this challenge.\* A copy can be obtained by contacting Mr. Ernest Koehler, NAVPERSRANDCEN, Code 302, Telephone (714) 225-6617 or Autovon 933-6693.

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\*An Engineer's Guide to the Use of Human Resources in Electronic Systems Design (NPRDC TN 79-8). San Diego: Navy Personnel Research and Development Center, June 1979.

**APPENDIX**  
**MANPOWER AVAILABILITY BY RATING AND PAY GRADE**

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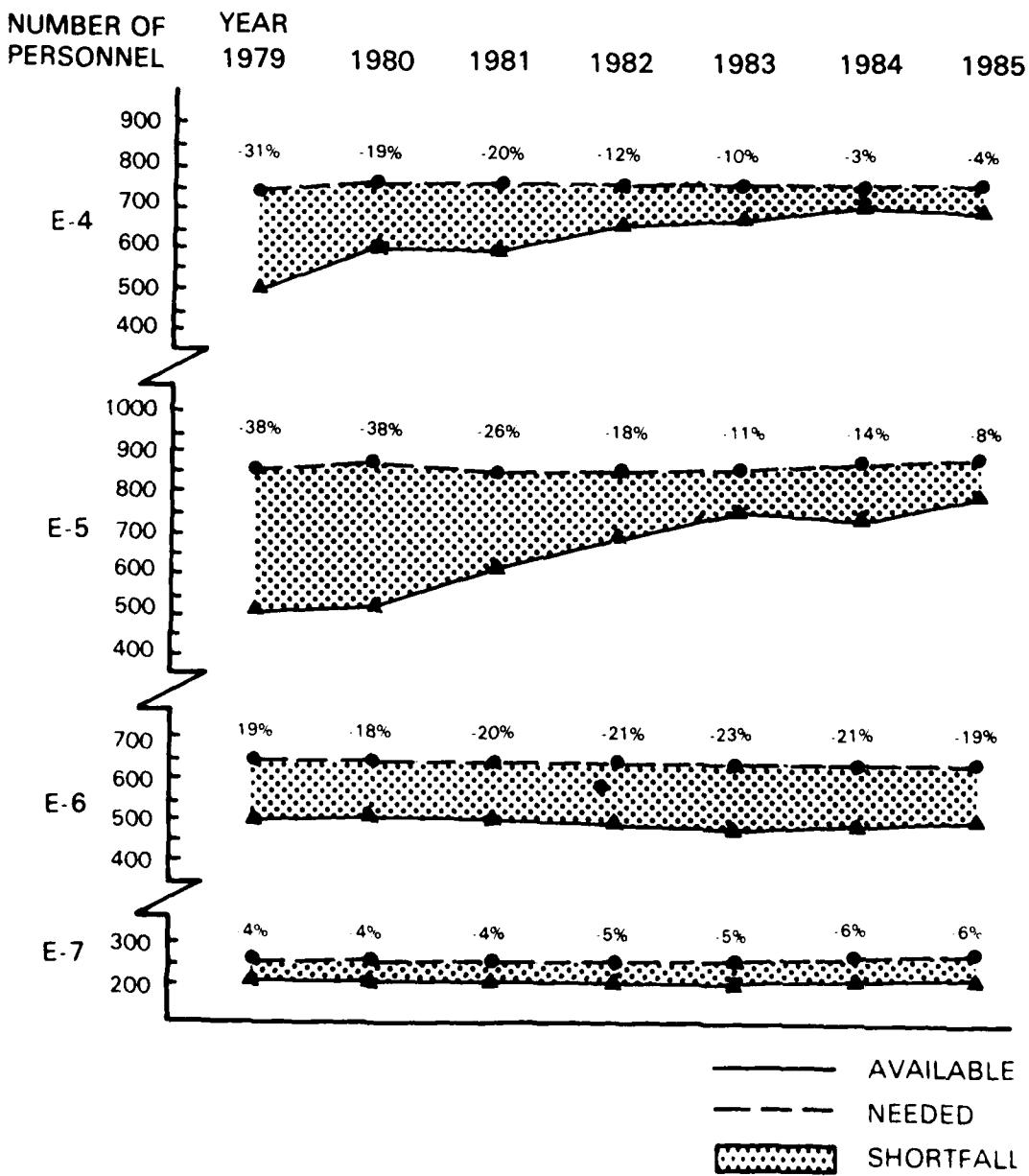
AIR CONTROLMAN (AC)

<b>Rate</b>	<b>FY 79</b>	<b>FY 80</b>	<b>FY 81</b>	<b>FY 82</b>	<b>FY 83</b>	<b>FY 84</b>	<b>FY 85</b>
<b>E-1/3</b>	1009 1.45	1139 1.35	1184 1.48	1256 1.46	1282 1.51	1257 1.50	1247 1.60
	----	----	----	----	----	----	----
	----	----	----	----	----	----	----
<b>E-4</b>	518 2.61	620 2.65	618 2.75	685 2.71	699 2.79	741 2.78	731 2.86
	755	770	770	775	778	762	762
	-31.39	-19.48	-19.74	-11.61	-10.15	-2.76	-4.07
<b>E-5</b>	535 5.23	550 4.88	644 4.52	711 4.52	774 4.50	763 4.51	825 4.50
	863	882	865	870	868	892	892
	-38.01	-37.64	-25.55	-18.28	-10.83	-14.46	-7.51
<b>E-6</b>	525 10.04	530 9.76	515 9.91	505 10.02	499 9.88	520 9.73	532 9.58
	650	650	640	643	646	659	659
	-19.23	-18.46	-19.53	-21.46	-22.76	-21.09	-19.27
<b>E-7</b>	256 17.74	259 18.03	249 18.05	247 17.91	248 17.10	245 16.95	245 16.37
	266	271	260	260	261	261	261
	-3.76	-4.43	-4.23	-5.00	-4.98	-6.13	-6.13
<b>E-8</b>	64 21.86	61 22.61	61 22.83	63 22.75	63 22.20	66 22.14	66 21.92
	71	71	70	70	70	74	74
	-9.86	-14.08	-12.86	-10.00	-10.00	-10.81	-10.81
<b>E-9</b>	18 22.94	18 23.72	18 24.50	16 24.50	17 23.79	17 23.50	17 22.91
	20	19	19	19	20	20	20
	-10.00	-5.26	-5.26	-15.79	-15.00	-15.00	-15.00
<b>E-4/9</b>	1916 8.23	2038 7.84	2105 7.62	2227 7.35	2300 7.13	2352 7.05	2416 6.93
	2625	2663	2624	2637	2643	2668	2668
	-27.01	-23.47	-19.78	-15.55	-12.98	-11.84	-9.45
<b>Total</b>	2925 5.89	3177 5.51	3289 5.41	3483 5.23	3582 5.12	3609 5.12	3663 5.12
	2625	2663	2624	2637	2643	2668	2668
	----	----	----	----	----	----	----

**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the AC E-4 in FY80, the estimates are:

End Strength	620	(Projected number of men at end of FY)
Mean LOS	2.65	(Average Length of Service)
Manpower Requirements	770	(CNO estimates of number required)
End Strength Status	-19.48	(Percentage over or under requirements)

## AIR CONTROLMAN (AC)



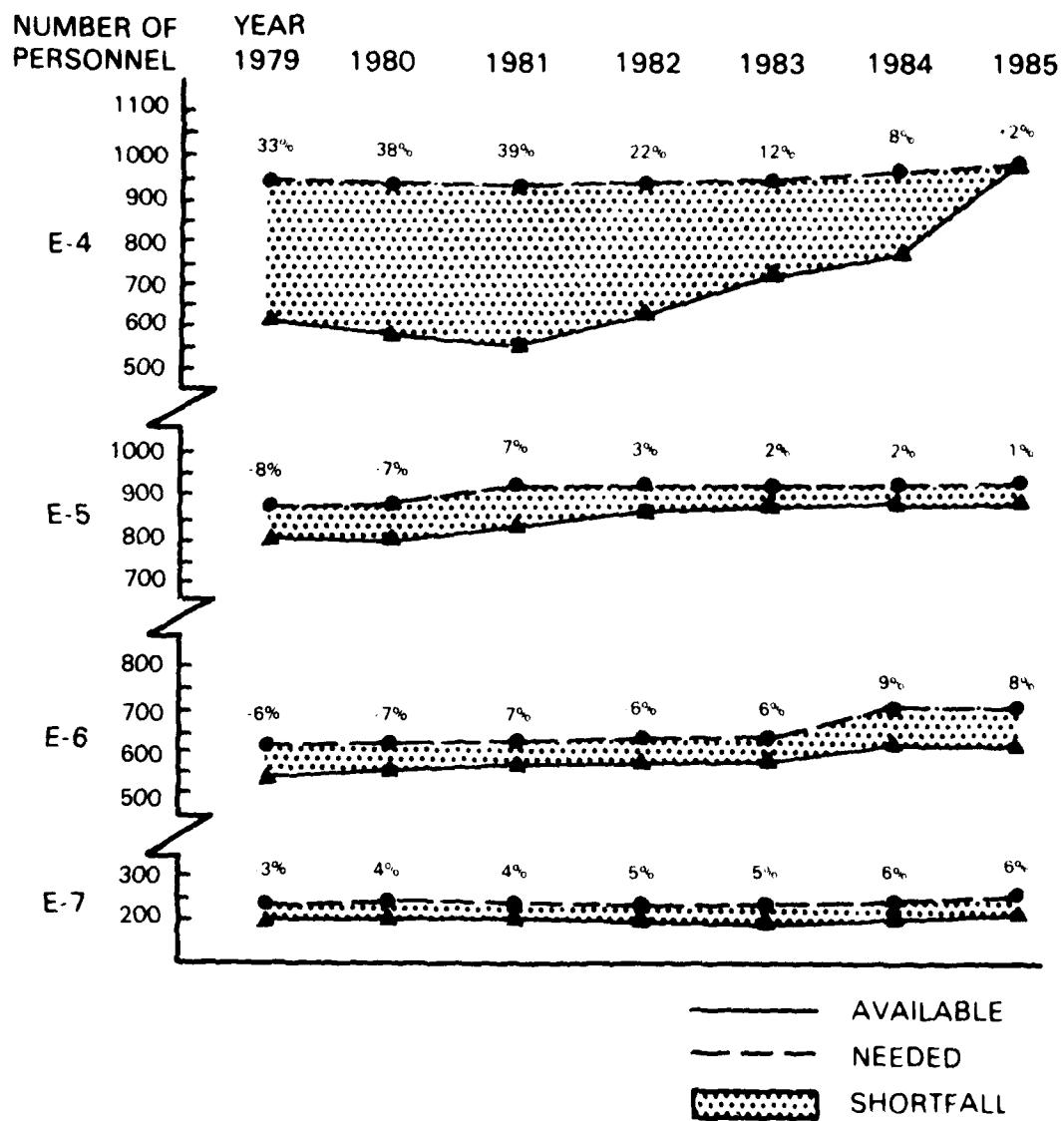
AVIATION FIRE CONTROL TECHNICIAN (AQ)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	613 1.49	834 1.33	920 1.51	939 1.45	1002 1.58	963 1.63	962 1.80
E-4	638 2.95	591 2.36	583 2.29	743 2.30	851 2.52	906 2.50	999 2.68
	950 -32.84	952 -37.92	950 -38.63	956 -22.28	965 -11.81	980 -7.55	980 1.94
E-5	818 6.45	834 6.13	861 5.48	899 5.14	907 5.06	921 4.77	930 4.92
	887 -7.78	895 -6.82	925 -6.92	928 -3.13	930 -2.47	943 -2.33	943 -1.38
E-6	569 10.79	584 10.87	594 10.93	599 11.02	599 11.18	640 10.86	643 10.90
	606 -6.11	629 -7.15	637 -6.75	640 -6.41	640 -6.41	702 -8.83	702 -8.40
E-7	241 15.34	246 15.46	246 15.37	247 15.13	247 15.14	256 15.16	256 15.40
	248 -2.82	257 -4.28	257 -4.28	260 -5.00	260 -5.00	272 -5.88	272 -5.88
E-8	114 19.41	110 19.92	113 19.57	114 19.71	111 19.61	117 19.64	118 19.86
	125 -8.80	123 -10.57	125 -9.60	127 -10.24	123 -9.76	131 -10.69	131 -9.92
E-9	39 21.94	38 22.63	40 22.60	41 23.01	40 23.13	45 23.46	46 23.85
	48 -18.75	46 -17.39	48 -16.67	49 -16.33	48 -16.67	53 -15.09	53 -13.21
E-4/9	2419 8.29	2403 8.20	2437 7.98	2643 7.51	2755 7.36	2885 7.22	2992 7.24
	2864 -15.54	2902 -17.20	2942 -17.17	2960 -10.71	2966 -7.11	3081 -6.36	3081 -2.89
Total	3032 6.92	3237 6.43	3357 6.21	3582 5.93	3757 5.82	3848 5.83	3954 5.91
	2864 ----	2902 ----	2942 ----	2960 ----	2966 ----	3081 ----	3081 ----

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the AQ E-4 in FY80, the estimates are:

End Strength	591	(Projected number of men at end of FY)
Mean LOS	2.36	(Average Length of Service)
Manpower Requirements	952	(CNO estimates of number required)
End Strength Status	-37.92	(Percentage over or under requirements)

## AVIATION FIRE CONTROL TECHNICIAN (AQ)



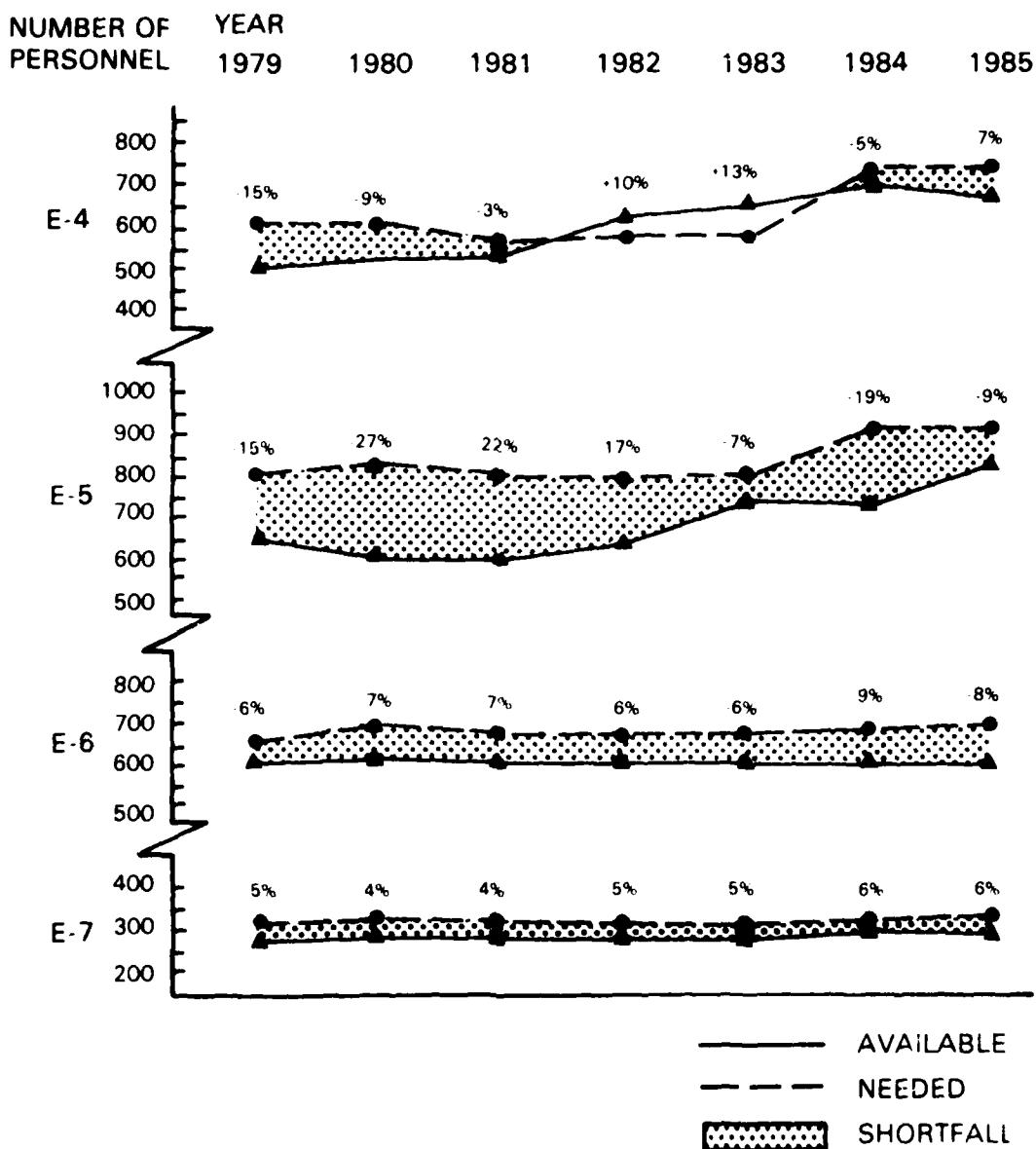
**AVIATION ANTI-SUB. WARFARE OPERATOR (AM)**

<b>Rate</b>	<b>FY 79</b>	<b>FY 80</b>	<b>FY 81</b>	<b>FY 82</b>	<b>FY 83</b>	<b>FY 84</b>	<b>FY 85</b>
<b>E-1/3</b>	999 1,54 ----	1164 1,39 ----	1,222 1,51 ----	1,302 1,50 ----	1,379 1,58 ----	1,416 1,61 ----	1,495 1,76 ----
<b>E-4</b>	514 2,84 604 -14,90	554 3,00 609 -9,03	567 3,01 584 -2,91	677 2,95 795 -10,42	700 3,07 803 -11,61	711 3,02 751 -5,33	698 3,06 751 -7,06
<b>E-5</b>	677 4,81 800 -15,37	603 4,73 830 -27,35	675 4,71 801 -21,97	668 4,65 803 -16,81	729 4,63 803 -16,72	736 4,61 909 -19,03	825 4,71 909 -9,24
<b>E-6</b>	624 10,83 662 -6,19	648 10,31 697 -7,03	640 10,29 687 -6,84	642 10,19 686 -6,71	644 10,09 688 -6,60	633 10,09 694 -8,59	636 10,28 694 -8,36
<b>E-7</b>	291 16,88 307 -5,21	301 16,83 315 -4,44	296 16,95 309 -4,21	295 17,10 310 -4,84	297 17,10 310 -4,53	304 16,61 324 -6,17	304 16,29 324 -6,17
<b>E-8</b>	81 20,41 81 -1,0	71 20,73 79 -10,13	70 21,33 78 -10,16	73 21,33 81 -9,84	74 21,37 81 -10,84	89 21,31 100 -11,90	90 21,86 100 -10,00
<b>E-9</b>	22 23,18 28 -11,43	23 23,76 28 -11,86	23 24,07 28 -12,86	23 24,22 28 -12,86	24 24,73 28 -12,94	24 24,90 28 -12,90	24 23,95 28 -12,00
<b>E-4/9</b>	2206 8,49 2382 -11,12	2200 8,31 2359 -11,00	2124 8,14 2387 -10,10	2338 8,06 2313 -25,10	2376 8,07 2310 -25,10	2405 8,04 2383 -10,06	2427 8,06 2380 -10,06
<b>Total</b>	8,00 6,16 15,58 ----	8,04 5,91 15,58 ----	8,03 5,88 15,58 ----	8,00 5,86 15,58 ----	8,01 5,87 15,58 ----	8,01 5,83 15,58 ----	8,01 5,76 15,58 ----

**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the E-4 in FY80, the estimates are:

<b>End Strength</b>	1,54	Unadjusted number of men it ended at FYS.
<b>Mean LOS</b>	1,39	Average length of service
<b>Manpower Requirements</b>	1,51	Estimated rates of manning required
<b>End Strength Status</b>	1,50	Percentage over or under requirements

## AVIATION ANTISUBMARINE WARFARE OPERATOR (AW)



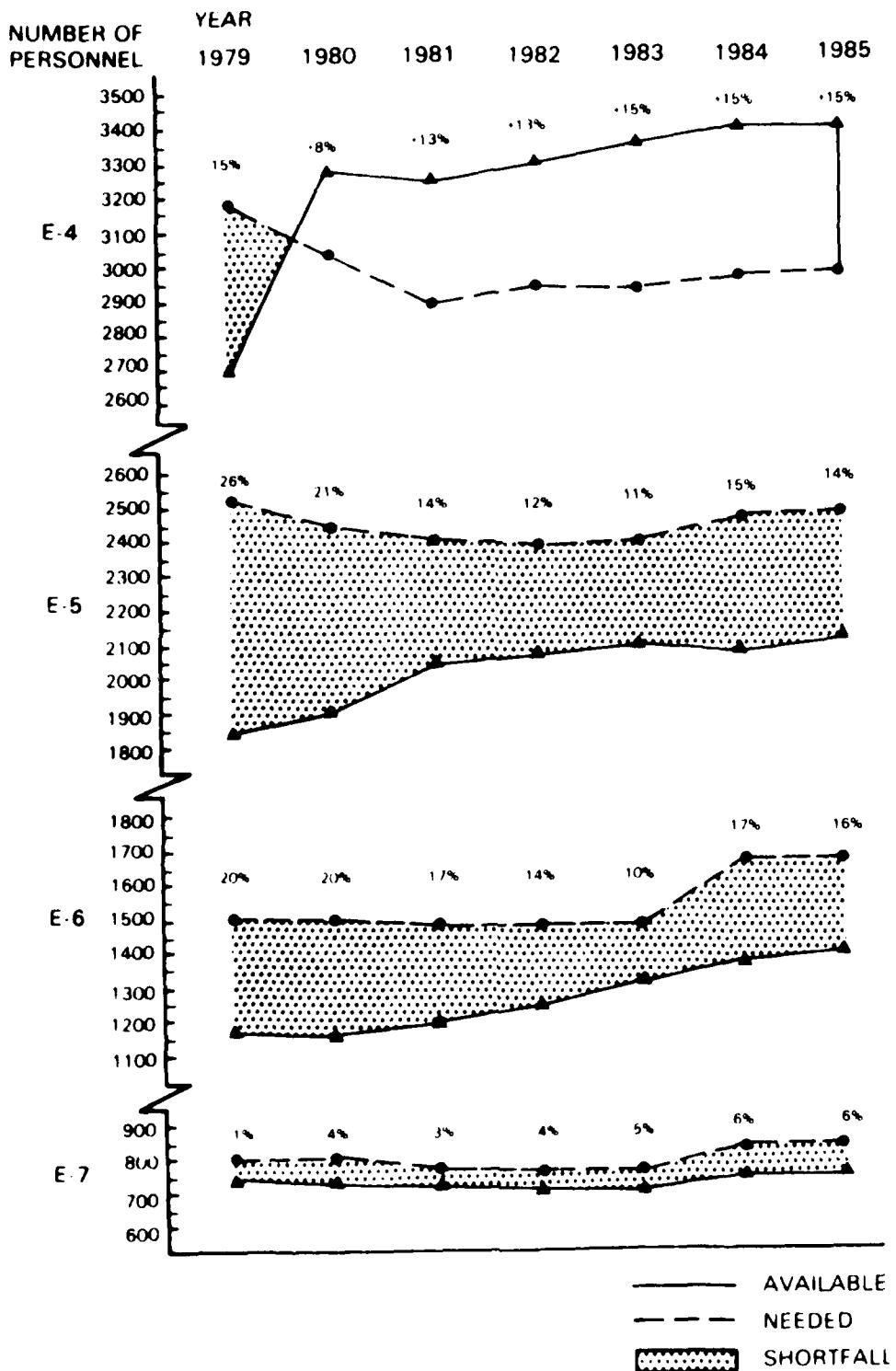
BOILER TECHNICIAN (BT)

<b>Rate</b>	<b>FY 79</b>	<b>FY 80</b>	<b>FY 81</b>	<b>FY 82</b>	<b>FY 83</b>	<b>FY 84</b>	<b>FY 85</b>
E-1/3	6534 1.83	6778 1.62	6904 1.74	7447 1.69	7591 1.80	7496 1.79	7312 1.88
E-4	2723 2.54	3304 2.46	3280 2.44	3337 2.43	3393 2.49	3427 2.50	3427 2.51
	3198 -14.85	3050 8.33	2900 13.10	2954 12.97	2951 11.98	2980 15.00	2980 15.00
E-5	1862 5.78	1933 5.58	2062 5.41	2099 5.41	2134 5.38	2108 5.38	2144 5.38
	2525 -26.26	2450 -21.10	2400 -14.08	2398 -12.47	2400 -11.08	2482 -15.07	2482 -13.62
E-6	1195 10.89	1196 10.06	1229 9.45	1280 9.24	1347 9.23	1389 9.31	1413 9.54
	1500 -20.33	1500 -20.27	1482 -17.07	1491 -14.15	1493 -9.78	1673 -16.98	1673 -15.54
E-7	789 16.35	765 16.07	752 15.66	745 15.14	728 14.80	767 14.45	768 14.27
	800 -1.37	800 -4.37	779 -3.47	774 -3.75	764 -4.71	818 -6.23	818 -6.11
E-8	227 19.09	240 19.13	250 18.97	255 18.94	262 18.87	241 19.05	243 18.97
	250 -9.20	240 0.0	243 2.88	250 2.00	250 4.80	271 -11.07	271 -10.33
E-9	141 21.59	131 21.85	125 22.22	125 22.36	129 22.71	130 22.70	126 22.58
	190 -25.79	191 -31.41	200 -37.50	200 -37.50	200 -35.50	176 -26.14	176 -28.41
E-4/9	6937 7.35	7569 6.70	7698 6.50	7841 6.40	7993 6.38	8062 6.38	8111 6.41
	8463 -18.03	8231 -8.04	8004 -3.82	8067 -2.80	8058 -0.81	8400 -4.02	8400 -4.32
<b>Total</b>	<b>13471 4.67</b>	<b>14347 4.30</b>	<b>14602 4.25</b>	<b>15288 4.11</b>	<b>15584 4.15</b>	<b>15558 4.17</b>	<b>15433 4.26</b>
	8463 ----	8231 ----	8004 ----	8067 ----	8058 ----	8400 ----	8400 ----

**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the BT E-4 in FY80, the estimates are:

End Strength	1304	(Projected number of men at end of FY)
Mean LOS	2.46	(Average Length of Service)
Manpower Requirements	3050	(CNO estimates of number required)
End Strength Status	8.33	(Percentage over or under requirements)

## BOILER TECHNICIAN (BT)



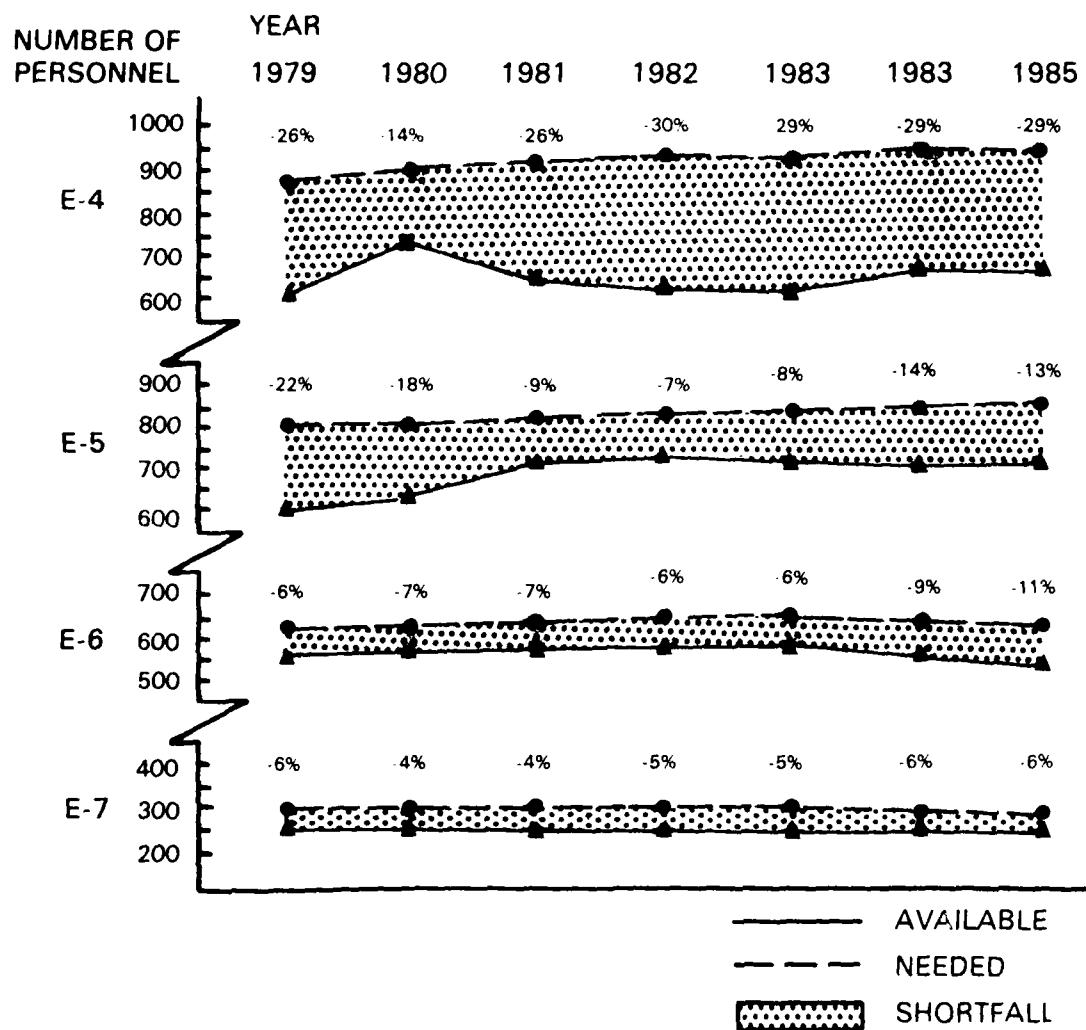
DATA PROCESSING TECHNICIAN (DP)

<b>Rate</b>	<b>FY 79</b>	<b>FY 80</b>	<b>FY 81</b>	<b>FY 82</b>	<b>FY 83</b>	<b>FY 84</b>	<b>FY 85</b>
E-1/3	1577 1.62	1486 1.58	1441 1.64	1473 1.56	1491 1.64	1462 1.65	1421 1.71
	----	----	----	----	----	----	----
	----	----	----	----	----	----	----
E-4	649 2.89	770 2.82	675 3.05	646 2.89	658 3.01	675 3.05	674 3.03
	880 -26.25	900 -14.44	915 -26.23	929 -30.46	927 -29.02	946 -28.65	946 -28.75
E-5	628 5.52	663 4.79	743 4.15	767 4.08	763 4.06	727 3.97	732 4.02
	800 -21.50	809 -18.05	815 -8.83	826 -7.14	831 -8.18	843 -13.76	843 -13.17
E-6	589 13.06	592 12.77	597 12.16	609 11.50	610 10.97	576 10.78	560 10.17
	628 -6.21	637 -7.06	641 -6.86	651 -6.45	651 -6.30	632 -8.86	632 -11.39
E-7	281 16.68	288 16.74	289 16.92	289 17.02	289 17.21	280 17.35	280 17.12
	300 -6.33	301 -4.32	302 -4.30	304 -4.93	303 -4.62	298 -6.04	298 -6.04
E-8	55 19.45	49 20.38	49 20.81	50 21.00	49 20.95	51 20.93	53 21.01
	53 3.77	54 -9.26	54 -9.26	55 -9.09	54 -9.26	58 -12.07	58 -8.62
E-9	24 21.71	23 22.54	22 23.36	23 23.46	23 23.63	23 22.93	23 22.80
	27 -11.11	26 -11.54	27 -18.52	28 -17.86	28 -17.86	27 -14.81	27 -14.81
E-4/9	2226 8.67	2385 8.07	2375 7.92	2384 7.76	2392 7.66	2332 7.55	2322 7.37
	2688 -17.19	2727 -12.54	2754 -13.76	2793 -14.64	2794 -14.39	2804 -16.83	2804 -17.19
<b>Total</b>	3803 5.75	3871 5.58	3816 5.55	3857 5.40	3883 5.35	3794 5.28	3743 5.22
	2688	2727	2754	2793	2794	2804	2804
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**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the DP E-4 in FY80, the estimates are:

End Strength	770	(Projected number of men at end of FY)
Mean LOS	2.82	(Average Length of Service)
Manpower Requirements	900	(CNO estimates of number required)
End Strength Status	-14.44	(Percentage over or under requirements)

## DATA PROCESSING TECHNICIAN (DP)



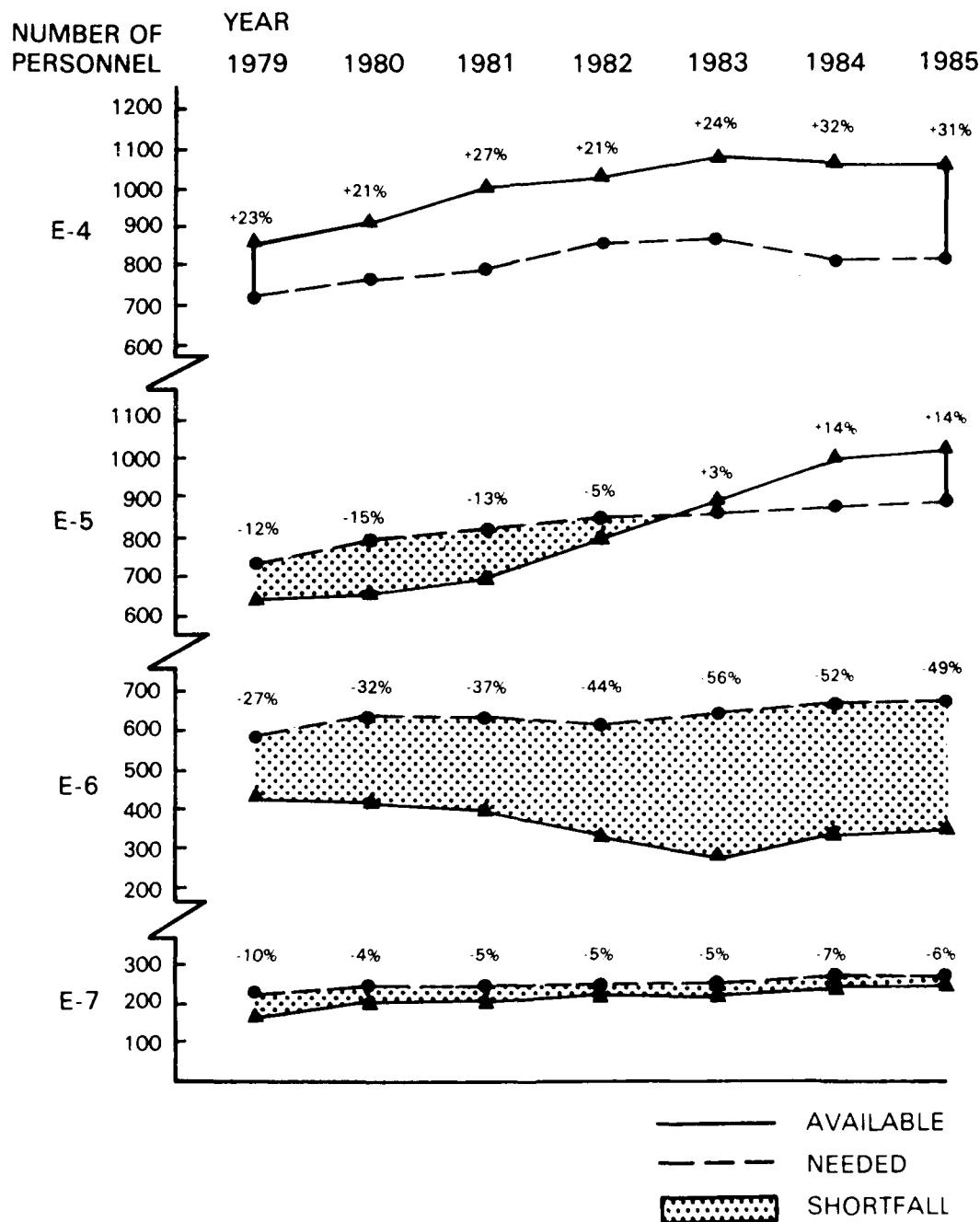
DATA SYSTEMS TECHNICIAN (DS)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	530 1.84	678 2.01	710 2.45	785 2.47	750 2.74	763 2.90	762 3.13
E-4	881 1.50	932 1.36	1009 1.39	1048 1.47	1093 1.55	1067 1.52	1061 1.52
	719 22.53	773 20.57	797 26.60	869 20.60	880 24.20	807 32.22	807 31.47
E-5	655 4.47	681 3.84	703 3.52	809 3.32	907 3.38	1019 3.59	1019 3.62
	743 -11.84	800 -14.87	812 -13.42	855 -5.38	879 3.19	890 14.49	890 14.49
E-6	435 8.08	434 7.65	409 7.67	346 7.30	291 7.11	330 6.44	346 6.20
	592 -26.52	642 -32.40	645 -36.59	618 -44.01	660 -55.91	683 -51.68	683 -49.34
E-7	189 14.52	222 14.88	223 15.53	228 15.89	229 16.03	239 15.49	241 15.01
	211 -10.43	232 -4.31	234 -4.70	239 -4.60	240 -4.58	257 -7.00	257 -6.23
E-8	42 16.60	38 16.89	38 17.58	39 18.37	37 18.99	32 19.31	30 18.97
	30 40.00	30 26.67	29 31.03	32 21.88	32 15.63	33 -3.03	33 -9.09
E-9	14 21.57	15 22.10	15 21.90	15 21.97	15 22.90	16 23.38	16 24.00
	17 -17.65	18 -16.67	18 -16.67	18 -16.67	18 -16.67	19 -15.79	19 -15.79
E-4/9	2216 5.19	2322 4.94	2397 4.79	2485 4.60	2572 4.49	2703 4.47	2713 4.43
	2312 -4.15	2495 -6.93	2535 -5.44	2631 -5.55	2709 -5.06	2689 0.52	2689 0.89
<b>Total</b>	2746 4.54	3000 4.28	3107 4.25	3270 4.09	3322 4.10	3466 4.13	3475 4.15
	2312	2495	2535	2631	2709	2689	2689
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**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the DS E-4 in FY80, the estimates are:

End Strength	932	(Projected number of men at end of FY)
Mean LOS	1.36	(Average Length of Service)
Manpower Requirements	773	(CNO estimates of number required)
End Strength Status	20.57	(Percentage over or under requirements)

## DATA SYSTEMS TECHNICIAN (DS)



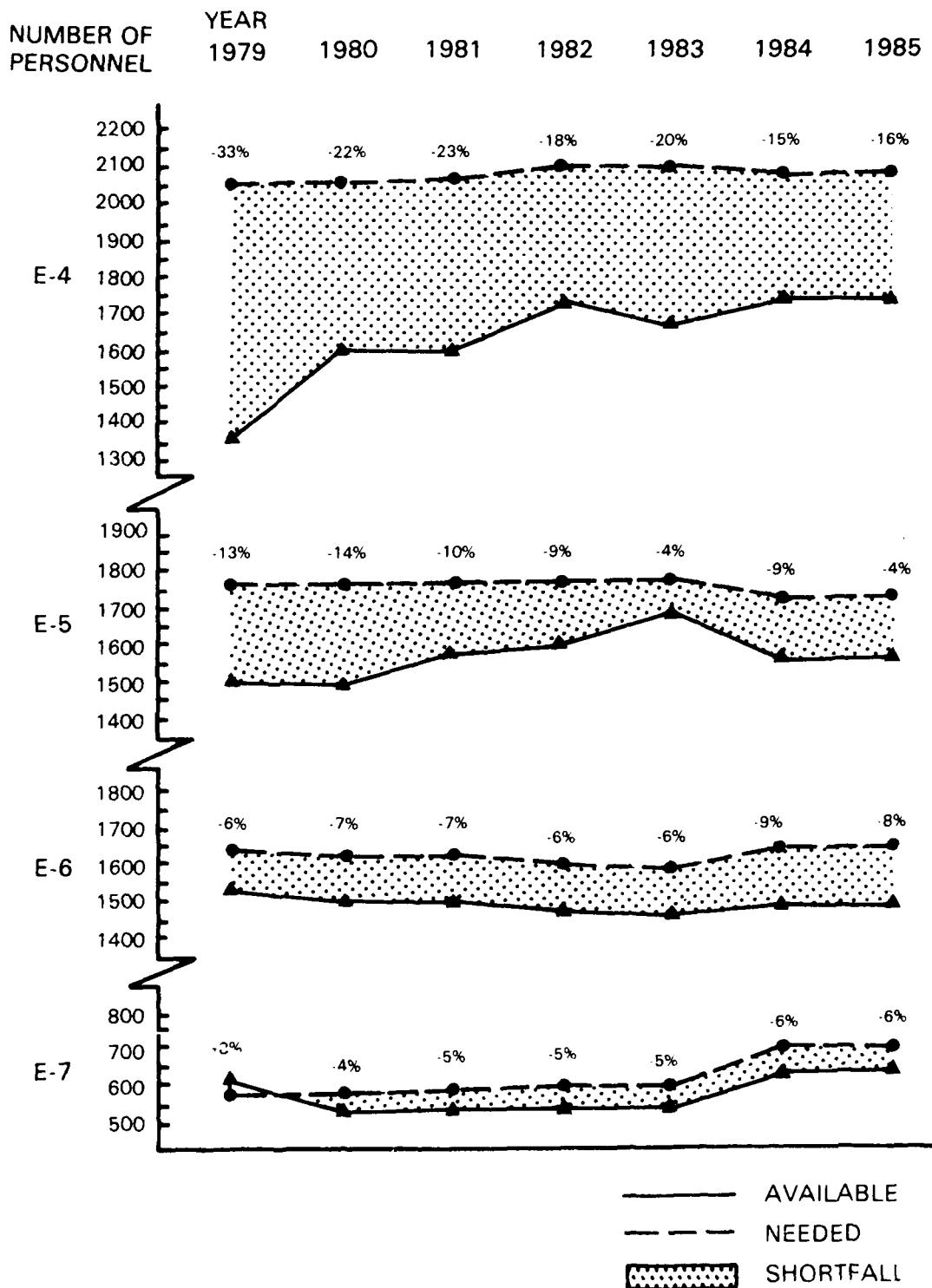
## ENGINEMAN (EN)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	5618 1.57	6061 1.49	6079 1.58	6252 1.50	6361 1.63	6383 1.61	6095 1.69
E-4	1378 3.47	1625 3.32	1615 3.48	1710 3.45	1680 3.51	1769 3.50	1757 3.55
	2060 -33.11	2081 -21.91	2085 -22.54	2100 -18.10	2100 -20.00	2085 -15.16	2085 -15.73
E-5	1538 5.54	1518 5.82	1595 5.78	1618 5.83	1704 5.77	1576 5.78	1670 5.73
	1770 -13.11	1774 -14.43	1779 -10.34	1776 -8.90	1780 -4.27	1731 -8.95	1731 -3.52
E-6	1550 12.29	1523 12.23	1524 11.84	1498 11.51	1487 11.20	1511 10.35	1517 10.32
	1653 -6.23	1639 -7.08	1634 -6.73	1600 -6.37	1588 -6.36	1657 -8.81	1657 -8.45
E-7	630 17.21	564 17.25	571 17.03	575 16.77	572 16.60	659 16.21	659 16.17
	585 7.69	589 -4.24	598 -4.52	603 -4.64	600 -4.67	702 -6.13	702 -6.13
E-8	141 19.58	130 19.69	125 19.44	125 19.64	125 19.36	135 19.31	136 19.10
	156 -9.62	145 -10.34	140 -10.71	140 -10.71	140 -10.71	151 -10.60	151 -9.93
E-9	73 22.01	71 22.04	70 22.43	71 22.22	71 22.18	74 22.36	76 22.38
	87 -16.09	87 -18.39	84 -16.67	84 -15.48	84 -15.48	88 -15.91	88 -13.64
E-4/9	5310 8.96	5431 8.60	5500 8.47	5607 8.26	5639 8.14	5724 8.01	5815 7.98
	6311 -15.86	6315 -14.00	6320 -12.97	6303 -11.04	6292 -10.38	6414 -10.76	6414 -9.34
Total	11933 5.15	11492 4.85	11579 4.87	11859 4.69	12000 4.69	11962 4.68	11910 4.76
	6311 -----	6315 -----	6320 -----	6303 -----	6292 -----	6414 -----	6414 -----

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the E-1/3 in FY80, the estimates are:

End Strength	1625	(Projected number of men at end of FY)
Mean LOS	3.32	(Average Length of Service)
Manpower Requirements	1181	(CNO estimates of number required)
End Strength Status	-21.91	(Percentage over or under requirement)

## ENGINEMAN (EN)



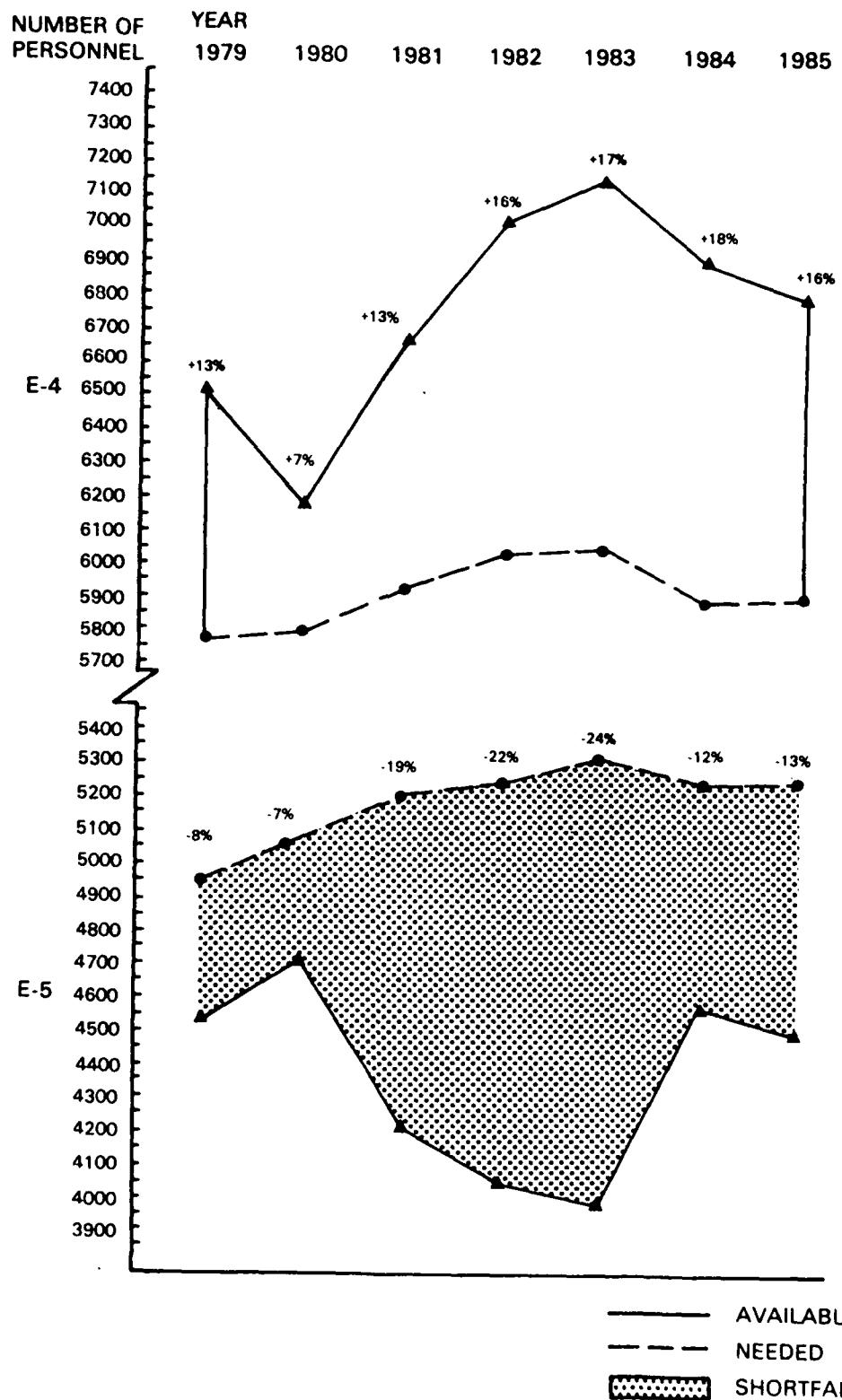
ELECTRONICS TECHNICIAN (ET)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	2716 1.89	3652 2.03	3585 2.24	3677 2.13	3371 2.29	3477 2.39	3390 2.58
E-4	6515 2.11	6172 1.78	6663 1.77	7017 1.86	7152 1.91	6908 1.89	6797 1.89
	5756 13.20	5788 6.64	5914 12.66	6038 16.14	6089 17.33	5870 17.63	5870 15.77
E-5	4532 4.44	4713 4.43	4211 4.38	4042 4.05	3989 3.77	4574 3.96	4490 3.97
	4948 -8.26	5060 -6.79	5203 -18.59	5244 -21.90	5320 -23.74	5247 -11.85	5247 -13.29
E-6	3265 10.26	3237 10.12	3244 9.85	3296 9.48	3288 9.31	3240 9.05	3254 8.70
	3481 -6.21	3485 -7.12	3479 -6.75	3522 -6.42	3512 -6.38	3555 -8.86	3555 -8.47
E-7	1409 15.53	1392 15.50	1415 15.49	1434 15.41	1435 15.52	1401 15.61	1402 15.71
	1455 -3.16	1456 -4.40	1481 -4.46	1505 -4.72	1505 -4.65	1493 -6.16	1493 -6.10
E-8	381 18.44	377 18.48	382 18.45	389 18.35	390 18.43	390 18.43	394 18.45
	420 -9.29	420 -10.24	425 -10.12	434 -10.37	434 -10.14	438 -10.96	438 -10.05
E-9	143 21.23	144 21.47	148 21.70	155 21.78	158 22.08	164 22.34	167 22.30
	176 -18.75	177 -18.64	178 -16.85	184 -15.76	186 -15.05	194 -15.46	194 -13.92
E-4/9	16245 6.11	16035 9.92	16063 5.87	16333 5.71	16412 5.62	16677 5.59	16504 5.57
	16236 .06	16386 -2.14	16680 -3.7	16927 -3.51	17046 -3.72	16797 -.71	16797 -1.74
Total	18961 5.51	19687 8.45	19648 5.21	20010 5.05	19783 5.05	20154 5.04	19894 5.06
	16236	16386	16680	16927	17046	16797	16797
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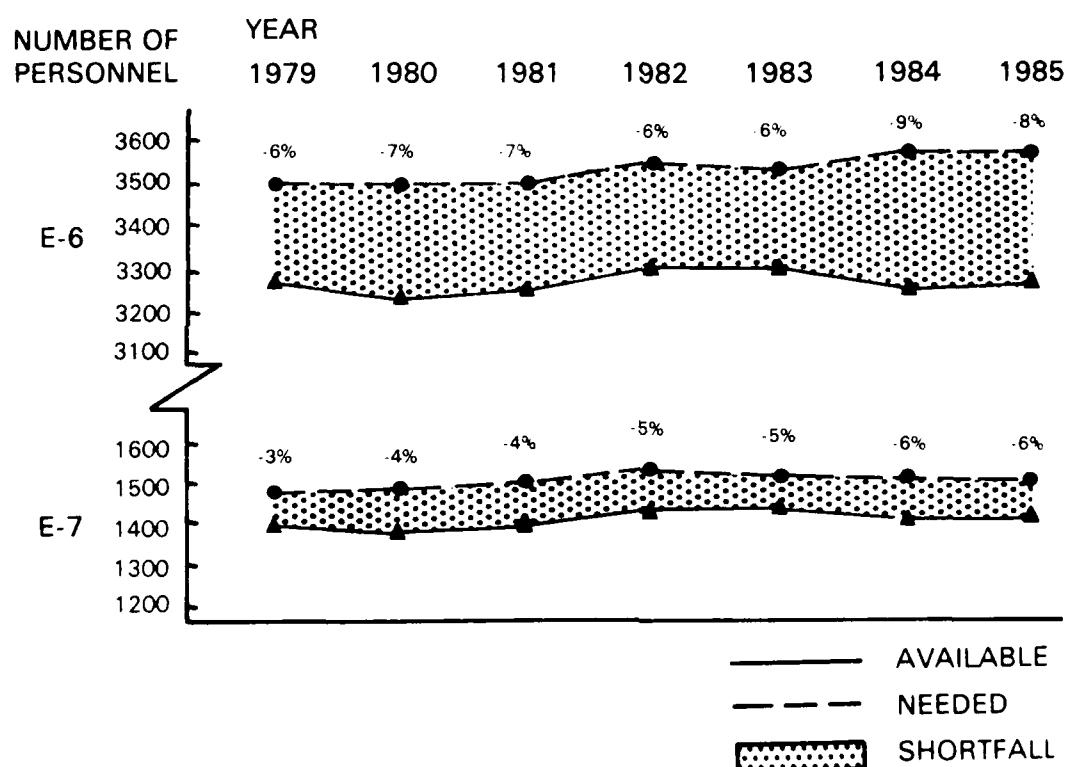
Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the ET E-6 in FY80, the estimates are:

End Strength	6172	(Projected number of men at end of FY)
Mean LOS	1.78	(Average Length of Service)
Manpower Requirements	5788	(CNO estimates of number required)
End Strength Status	6.64	(Percentage over or under requirements)

## ELECTRONICS TECHNICIAN (ET)



## ELECTRONICS TECHNICIAN (ET)



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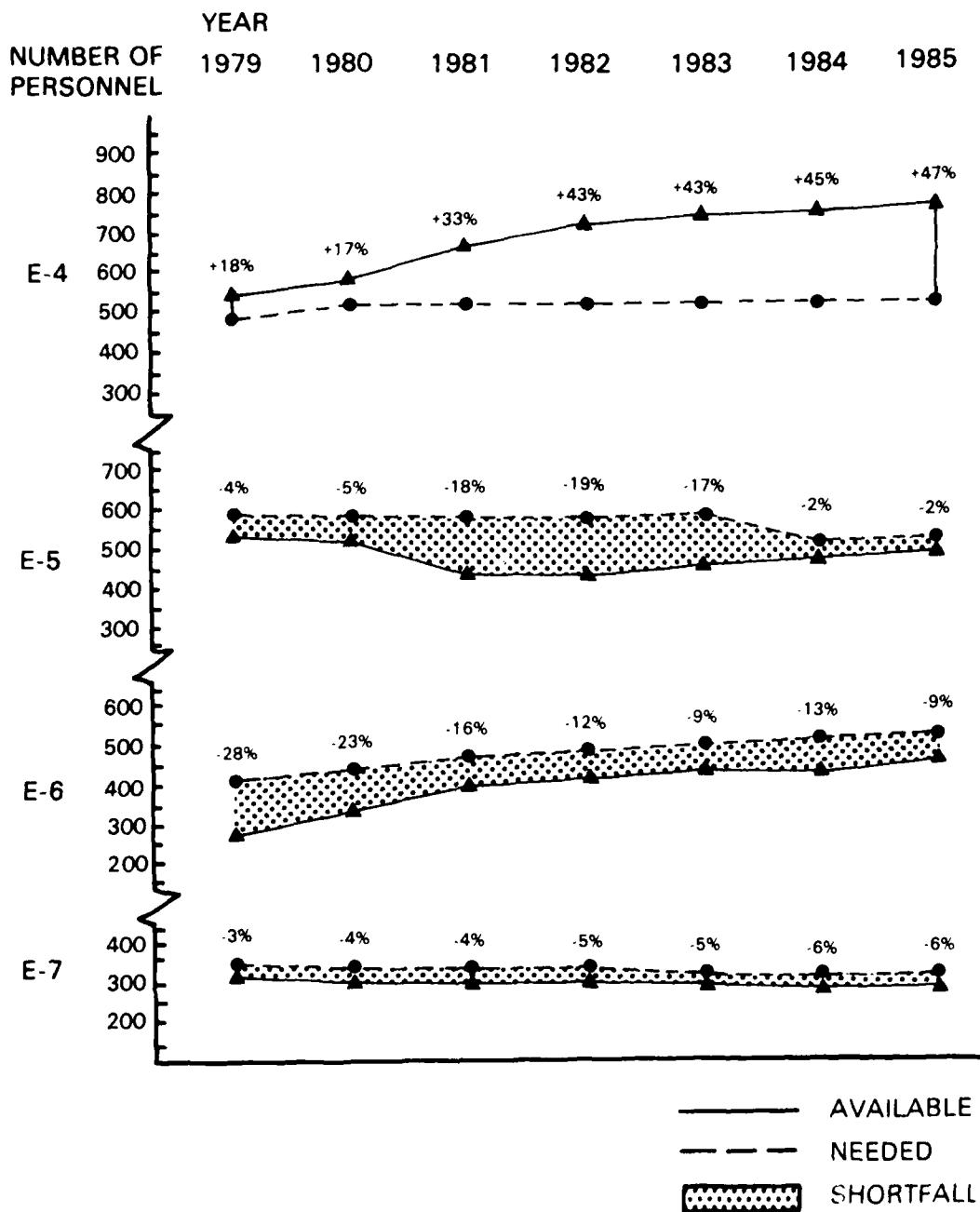
ELECTRONICS WARFARE TECHNICIAN (EW)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	540 2.26	655 2.53	683 2.95	730 3.03	769 3.31	791 3.59	824 3.93
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E-4	577 1.99	600 1.71	683 1.76	737 1.88	747 1.90	764 1.91	775 1.96
	489 18.00	512 17.19	514 32.88	517 42.55	524 42.56	527 44.97	527 47.06
E-5	550 4.80	545 5.00	466 5.14	459 4.95	475 4.78	496 4.89	500 4.90
	572 -3.85	574 -5.05	567 -17.81	570 -19.47	570 -16.67	508 -2.36	508 -1.57
E-6	293 9.02	351 8.92	403 8.96	432 9.14	454 9.40	459 9.63	478 9.89
	408 -28.19	455 -22.86	477 -15.51	493 -12.37	500 -9.20	527 -12.90	527 -9.30
E-7	333 15.40	328 16.06	316 16.59	314 17.03	303 17.60	298 17.93	298 18.11
	345 -3.48	343 -4.37	330 -4.24	330 -4.85	318 -4.72	317 -5.99	317 -5.99
E-8	55 17.85	55 18.59	53 18.93	53 19.20	53 19.52	51 20.17	51 20.50
	61 -9.84	59 -6.78	59 -10.17	59 -10.17	59 -10.17	59 -13.56	59 -13.56
E-9	13 20.27	12 21.33	13 21.96	12 21.50	13 22.19	13 23.12	13 24.04
	16 -18.75	15 -20.00	16 -18.75	15 -20.00	15 -13.33	13 0.0	13 0.0
E-4/9	1821 7.03	1891 7.10	1934 7.10	2007 7.09	2045 7.14	2081 7.20	2115 7.30
	1891 -3.70	1958 -3.42	1963 -1.48	1984 1.16	1986 2.97	1951 6.66	1951 8.41
Total	2361 5.94	2546 5.93	2617 6.02	2737 6.01	2814 6.10	2872 6.21	2939 6.36
	1891 ---	1958 ---	1963 ---	1984 ---	1986 ---	1951 ---	1951 ---

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the EW E-4 in FY80, the estimates are:

End Strength	600	(Projected number of men at end of FY)
Mean LOS	1.71	(Average Length of Service)
Manpower Requirements	512	(CNO estimates of number required)
End Strength Status	17.19	(Percentage over or under requirements)

## ELECTRONICS WARFARE TECHNICIAN (EW)



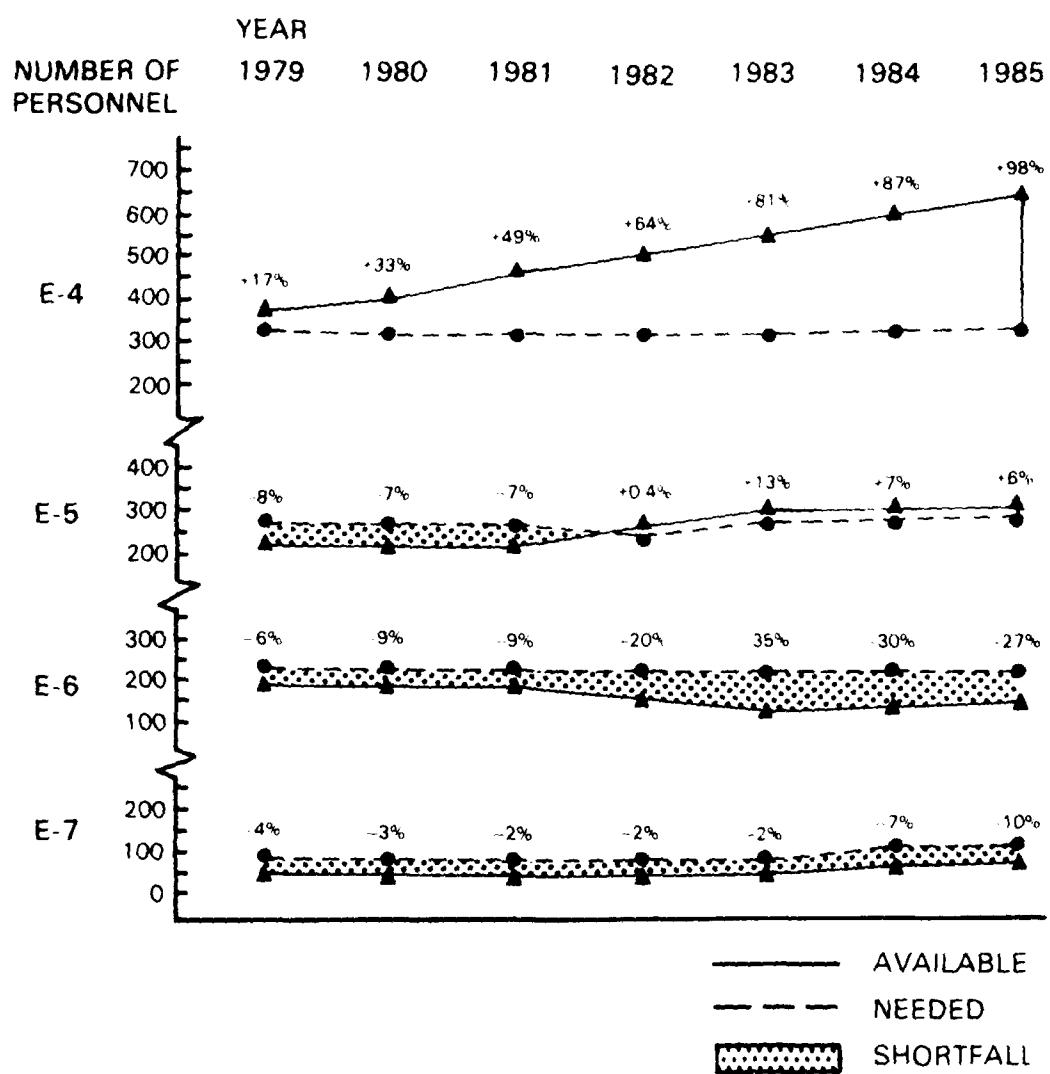
FIRE CONTROL TECHNICIAN (Ballistic Missile Fire Control) (FTB)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	161 1.86	213 2.36	281 2.54	309 2.93	357 3.16	391 3.43	430 3.79
E-4	391 1.75	426 1.49	476 1.50	525 1.62	579 1.80	628 2.03	666 2.26
	335 16.72	320 33.12	320 48.75	320 64.06	320 80.94	336 86.90	336 98.21
E-5	254 4.40	261 4.06	258 3.87	278 3.78	306 3.99	317 4.17	312 4.13
	275 -7.64	280 -6.79	277 -6.86	277 0.36	270 13.33	295 7.46	295 5.76
E-6	226 8.31	213 8.12	212 7.82	188 7.90	151 7.59	166 6.85	174 6.66
	240 -5.83	233 -8.58	234 -9.40	236 -20.34	232 -34.91	238 -30.25	238 -26.89
E-7	91 15.09	92 15.13	93 15.01	93 15.16	93 15.09	100 14.57	97 14.19
	95 -4.21	95 -3.16	95 -2.11	95 -2.11	95 -2.11	108 -7.41	108 -10.19
E-8							
E-9							
E-4/9	962 5.25	992 4.85	1039 4.59	1084 4.42	1129 4.26	1211 4.29	1249 4.27
	945 1.80	928 6.90	926 12.20	928 16.81	917 23.12	977 23.95	977 27.84
Total	1123 4.77	1205 4.41	1320 4.15	1393 4.09	1486 4.00	1602 4.08	1679 4.14
	945 ---	928 ---	926 ---	928 ---	917 ---	977 ---	977 ---

**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the FTR E-4 in FY80, the estimates are:

End Strength	426	(Projected number of men at end of FY)
Mean LOS	1.49	(Average Length of Service)
Manpower Requirements	320	(CNO estimates of number required)
End Strength Status	33.12	(Percentage over or under requirements)

## FIRE CONTROL TECHNICIAN (BALLISTIC MISSILE) (FTB)



FIRE CONTROL TECHNICIAN (Gun Fire Control) (FTG)

<b>Rate</b>	<b>FY 79</b>	<b>FY 80</b>	<b>FY 81</b>	<b>FY 82</b>	<b>FY 83</b>	<b>FY 84</b>	<b>FY 85</b>
E-1/3	1012 2.40	1277 2.28	1113 2.28	1294 2.16	1337 2.31	1414 2.46	1372 2.70
	----	----	----	----	----	----	----
	----	----	----	----	----	----	----
E-4	1022 2.12	1005 1.54	1350 1.89	1311 1.83	1322 1.85	1259 1.72	1305 1.80
	843 21.23	901 11.54	1019 32.48	1067 22.87	1074 23.09	1042 20.83	1042 25.24
E-5	867 4.71	768 4.81	626 4.41	850 4.07	923 4.10	976 4.16	945 4.17
	846 2.48	866 -11.32	866 -27.71	878 -3.19	888 3.94	907 7.61	907 4.19
E-6	688 8.40	656 7.54	581 7.37	467 7.59	416 7.48	425 6.91	418 6.50
	874 -21.28	850 -22.82	850 -31.65	836 -44.14	837 -50.30	871 -51.21	871 -52.01
E-7	474 15.08	494 14.84	500 14.45	498 13.96	504 13.31	516 13.17	515 12.93
	486 -2.47	512 -3.52	515 -2.91	517 -3.68	521 -3.26	546 -5.49	546 -5.68

E-8

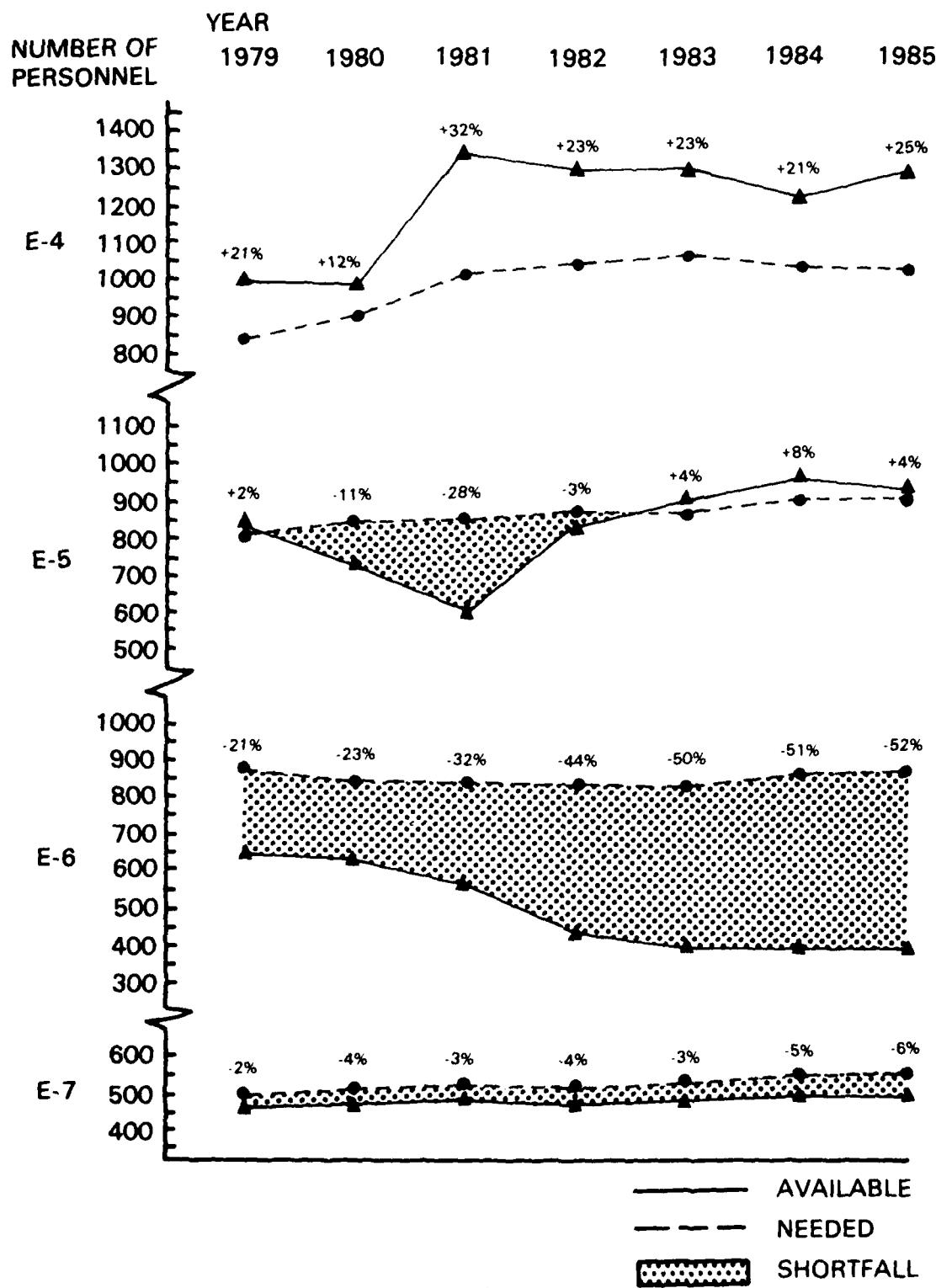
E-9

E-4/9	3051 6.28	2923 6.00	3057 5.50	3126 5.23	3165 5.07	3176 5.03	3183 4.92
	3049 0.07	3129 -6.58	3250 -5.94	3298 -5.22	3320 -4.67	3366 -5.64	3366 -5.44
Total	4063 5.32	4200 4.87	4170 4.64	4420 4.33	4502 4.25	4590 4.24	4555 4.25
	3049 ----	3129 ----	3250 ----	3298 ----	3320 ----	3366 ----	3366 ----

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the FTG E-4 in FY80, the estimates are:

End Strength	1005	(Projected number of men at end of FY)
Mean LOS	1.54	(Average Length of Service)
Manpower Requirements	901	(CNO estimates of number required)
End Strength Status	11.54	(Percentage over or under requirements)

## FIRE CONTROL TECHNICIAN (GUNS) (FTG)



FIRE CONTROL TECHNICIAN (Surface Missile Fire Control) (FTM)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	1113 2.30	1132 2.87	1196 3.17	1135 3.45	1065 3.59	1101 3.72	1143 3.80
E-4	1462 2.08	1435 1.84	1457 1.78	1460 1.80	1560 1.91	1471 1.82	1447 1.79
E-5	1272 14.94	1276 12.46	1263 15.36	1271 14.87	1268 23.03	1220 20.57	1220 18.61
E-6	1005 4.60	999 4.89	906 4.86	943 4.62	964 4.54	1050 4.51	1047 4.56
E-7	809 24.23	829 20.51	856 5.84	916 2.95	956 0.84	879 19.45	879 19.11
E-8	497 9.47	554 8.87	544 8.59	504 8.03	435 7.64	395 7.22	391 7.01
E-9	852 -41.67	900 -38.44	834 -34.77	855 -41.05	878 -50.46	775 -49.03	775 -49.55
E-10	290 15.26	292 15.37	286 15.49	287 15.80	287 14.71	304 13.44	307 12.88
E-11	300 -3.33	310 -5.81	310 -7.74	312 -8.01	310 -7.42	326 -6.75	326 -5.83

E-8

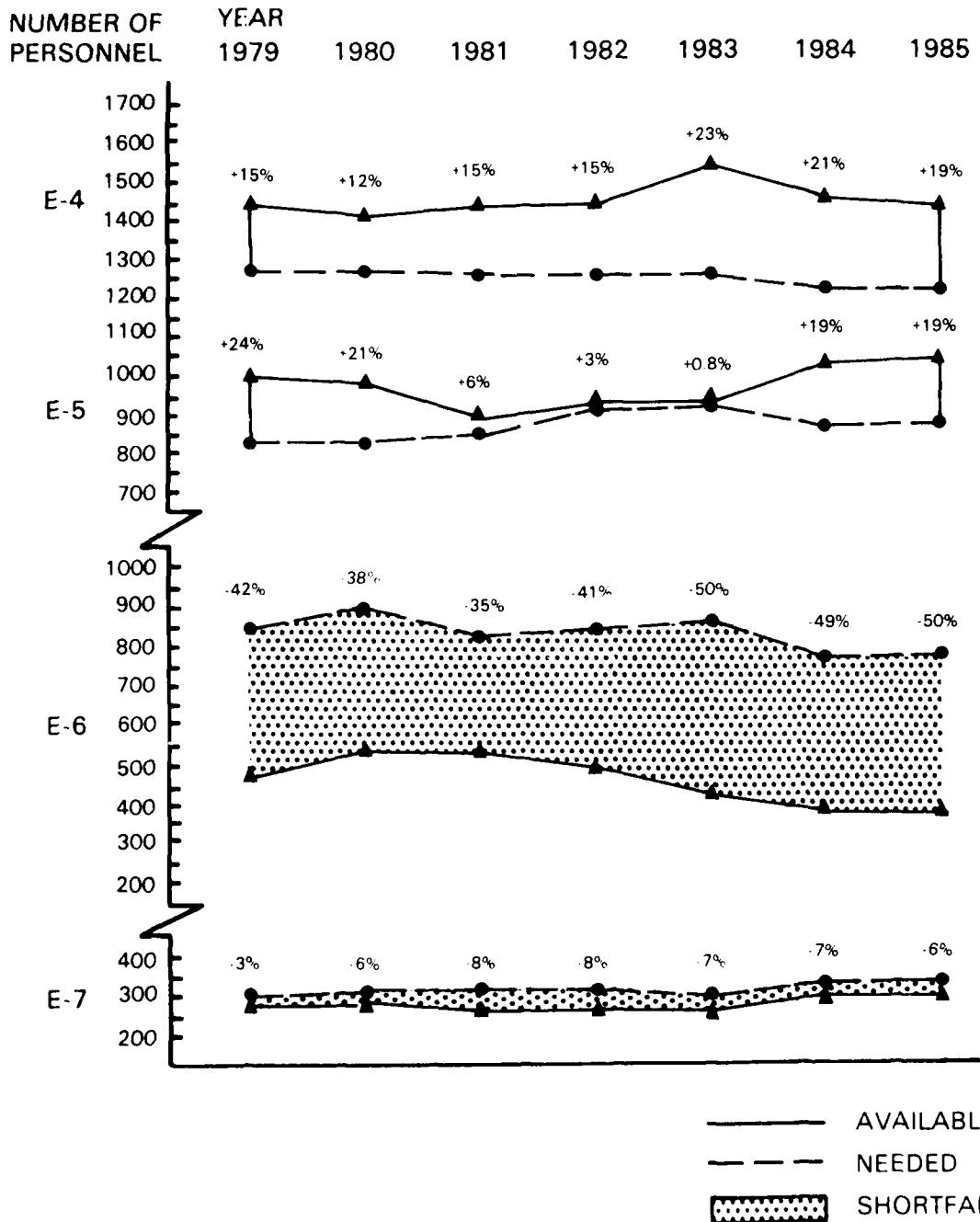
E-9

E-4/9	3254 5.16	3280 5.16	3193 5.04	3194 4.87	3246 4.59	3220 4.46	3192 4.41
	3233 0.65	3315 -1.06	3263 -2.15	3354 -4.77	3412 -4.87	3200 0.62	3200 -0.25
Total	4367 4.44	4412 4.57	4389 4.53	4329 4.50	4311 4.34	4321 4.27	4335 4.25
	3233 ----	3315 ----	3263 ----	3354 ----	3412 ----	3200 ----	3200 ----

**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the FTM E-4 in FY80, the estimates are:

End Strength	1435	(Projected number of men at end of FY)
Mean LOS	1.84	(Average Length of Service)
Manpower Requirements	1276	(CNO estimates of number required)
End Strength Status	12.46	(Percentage over or under requirements)

## FIRE CONTROL TECHNICIAN (SURFACE MISSILE) (FTM)



GUNNER'S MATE (Guns) (GMG)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	3865 1.91	3385 2.17	2725 2.20	2322 1.89	2262 1.89	2186 1.84	2106 1.88
	---	---	---	---	---	---	---
E-4	1099 3.26	1016 3.27	1078 3.54	1073 3.75	972 3.98	901 3.98	861 3.95
	972 13.07	953 6.61	953 13.12	950 12.95	950 2.32	953 -5.46	953 -9.65
E-5	1043 6.01	1066 6.08	1059 6.14	1111 6.25	1124 6.40	1173 6.75	1184 7.07
	1131 -7.78	1144 -6.82	1139 -7.02	1148 -3.22	1152 -2.43	1202 -2.41	1202 -1.50
E-6	957 11.95	957 11.54	954 11.21	953 11.04	978 10.96	943 11.15	948 11.40
	1047 -8.60	1030 -7.09	1023 -6.74	1018 -6.39	1045 -6.41	1035 -8.89	1035 -8.41
E-7	409 17.13	414 17.06	412 16.93	403 16.57	405 16.37	396 16.29	396 16.13
	429 -4.66	434 -4.61	433 -4.85	425 -5.18	428 -5.37	424 -6.60	424 -6.60
E-8							

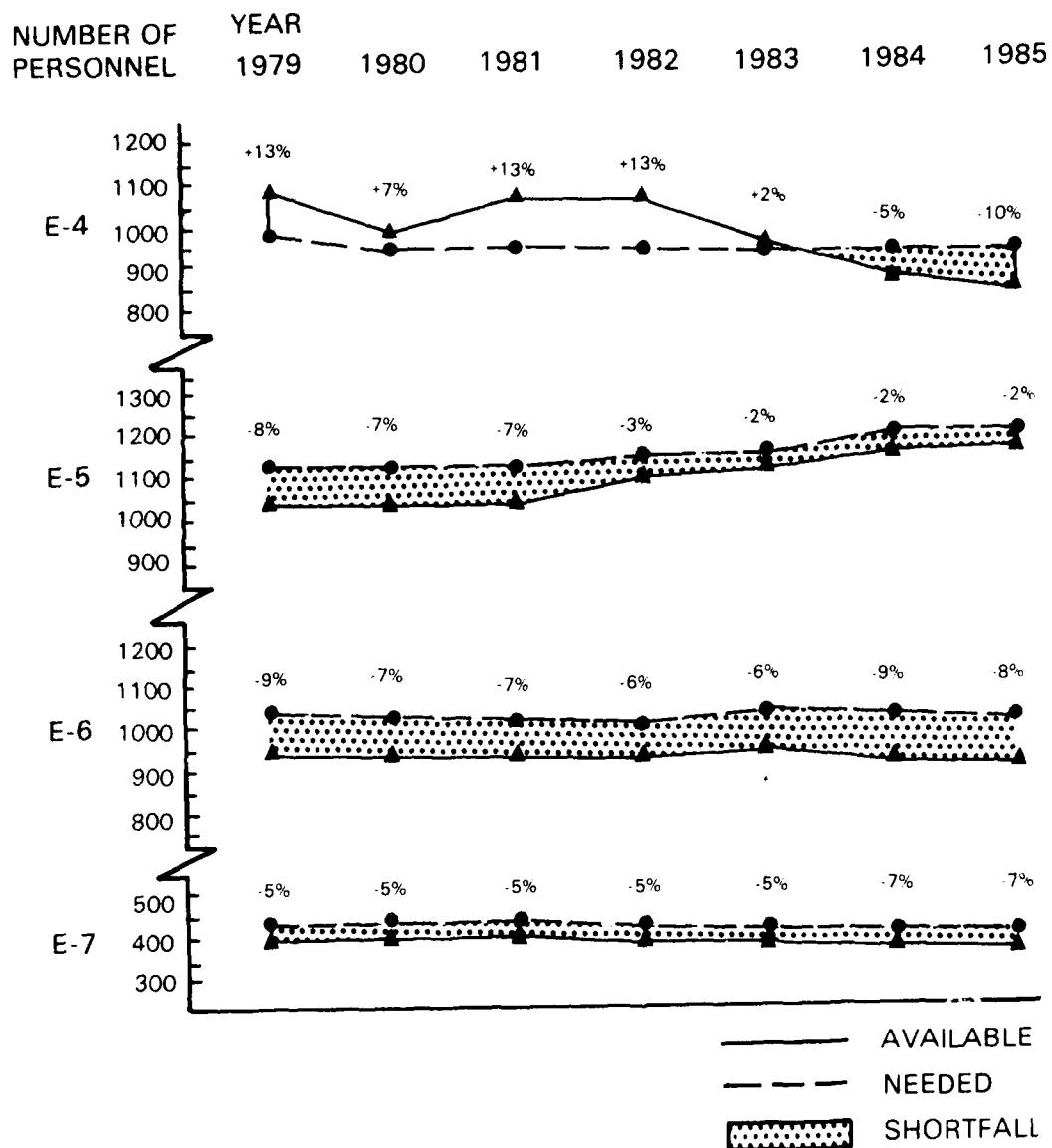
E-9

E-4/9	3508 8.07	3453 8.08	3503 7.99	3540 7.96	3479 8.17	3413 8.34	3389 8.55
	3579 -1.98	3561 -3.03	3548 -1.27	3541 -0.03	3575 -2.69	3614 -5.56	3614 -6.23
Total	7373 4.84	6838 5.16	6228 5.46	5862 5.55	5741 5.69	5599 5.80	5495 5.99
	3579 ----	3561 ----	3548 ----	3541 ----	3575 ----	3614 ----	3614 ----

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the GMG E-4 in FY80, the estimates are:

End Strength	1016	(Projected number of men at end of FY)
Mean LOS	3.27	(Average Length of Service)
Manpower Requirements	953	(CNO estimates of number required)
End Strength Status	6.61	(Percentage over or under requirements)

## GUNNER'S MATE (GUNS) (GMG)



GUNNER'S MATE (Missiles) (GMM)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	765 2.06	646 1.92	609 1.84	625 1.82	620 1.85	610 1.86	599 1.94
	---	---	---	---	---	---	---
	---	---	---	---	---	---	---
E-4	477 3.28	497 3.54	409 3.75	381 3.76	372 3.85	375 3.83	364 3.82
	347 37.46	355 40.00	370 10.54	377 1.06	379 -1.85	357 5.04	357 1.96
E-5	315 4.78	331 5.04	358 5.26	342 5.54	309 5.59	298 5.69	301 5.67
	374 -15.78	374 -11.50	386 -7.25	400 -14.50	400 -22.75	377 -20.95	377 -20.16
E-6	140 9.04	155 7.76	206 7.86	236 7.93	255 8.09	282 8.55	292 9.08
	324 -56.79	339 -54.28	346 -40.46	373 -36.73	388 -34.28	362 -22.10	362 -19.34
E-7	173 14.34	173 14.83	150 15.26	150 15.35	151 15.18	138 15.51	138 15.50
	180 -3.89	180 -3.89	155 -3.23	155 -3.23	155 -2.58	145 -4.83	145 -4.83

E-8

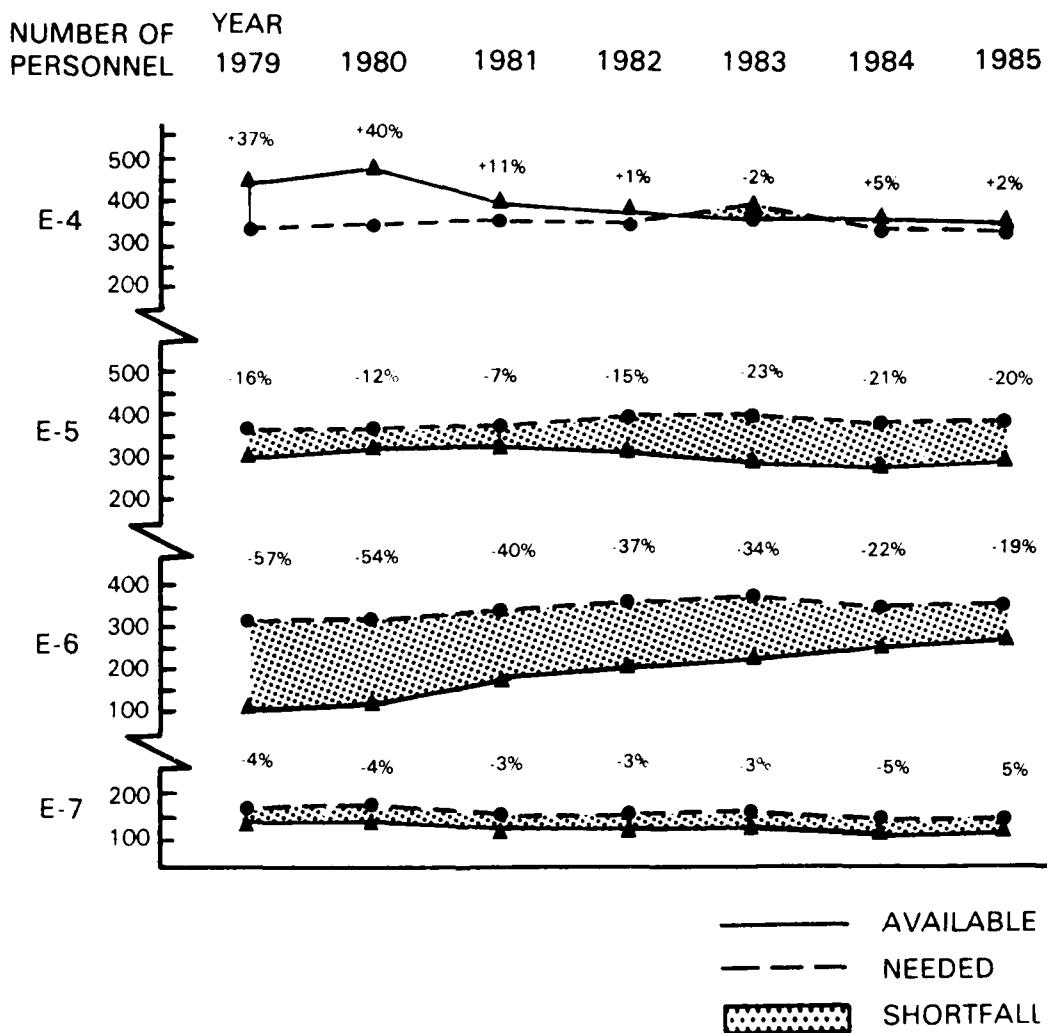
E-9

E-4/9	1105 6.17	1156 6.22	1123 6.52	1109 6.76	1087 6.91	1093 7.03	1095 7.21
	1225 -9.80	1248 -7.37	1257 -10.66	1305 -15.02	1322 -17.78	1241 -11.93	1241 -11.76
Total	1870 4.49	1802 4.68	1732 4.87	1734 4.98	1707 5.07	1703 5.18	1694 5.34
	1225 ---	1248 ---	1257 ---	1305 ---	1322 ---	1241 ---	1241 ---

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the GMM E-4 in FY80, the estimates are:

End Strength	497	(Projected number of men at end of FY)
Mean LOS	3.54	(Average Length of Service)
Manpower Requirements	355	(CNO estimates of number required)
End Strength Status	40.00	(Percentage over or under requirements)

## GUNNER'S MATE (MISSILES) (GMM)



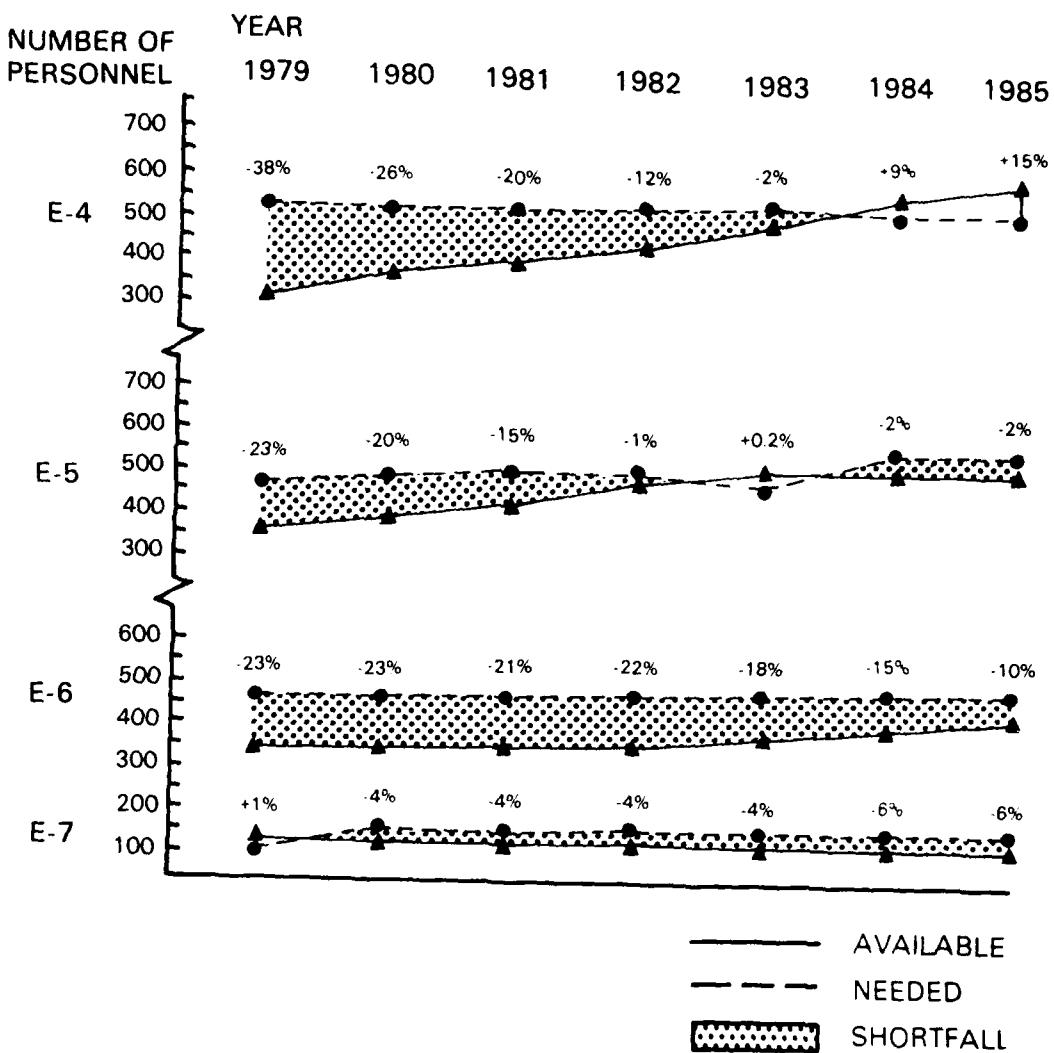
GUNNER'S MATE (Technician) (GMT)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	784 1.89	940 1.81	1010 1.94	1102 1.98	1173 2.16	1189 2.30	1232 2.50
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	---	---	---	---	---	---	---
E-4	336 2.85	390 2.89	420 3.03	466 3.04	519 3.10	574 3.12	604 3.32
	538	524	527	532	529	526	526
	-37.55	-25.57	-20.30	-12.41	-1.89	9.13	14.83
E-5	373 5.34	401 5.62	435 5.74	495 5.85	505 6.17	523 6.40	527 6.60
	482	499	509	499	504	535	535
	-22.61	-19.64	-14.54	-0.80	0.20	-2.24	-1.50
E-6	374 12.29	367 11.90	376 11.26	380 10.66	400 10.48	418 10.60	444 10.77
	487	475	473	485	490	491	491
	-23.20	-22.74	-20.51	-21.65	-18.37	-14.87	-9.57
E-7	162 17.65	153 17.89	149 17.78	152 17.60	156 17.68	145 17.80	145 17.73
	160 1.25	160 -4.37	156 -4.49	159 -4.40	163 -4.29	154 -5.84	154 -5.84
E-8	35 20.96	36 20.31	39 19.91	41 19.77	41 20.23	40 20.25	42 20.05
	43 -18.60	43 -16.28	45 -13.33	46 -10.87	46 -10.87	46 -13.04	46 -8.70
E-9	17 21.91	16 22.50	15 23.43	15 23.50	16 24.00	15 24.37	14 24.14
	14 21.43	14 14.29	16 -6.25	18 -16.67	18 -11.11	16 -6.25	16 -12.50
E-4/9	1297 8.88	1363 8.49	1434 8.21	1500 7.88	1637 7.87	1715 7.77	1776 7.89
	1724 -24.77	1715 -20.52	1726 -16.92	1739 -10.93	1750 -6.46	1768 -3.00	1768 0.45
<b>Total</b>	2081 6.25	2303 5.77	2444 5.62	2651 5.43	2810 5.49	2904 5.53	3008 5.69
	1724	1715	1726	1739	1750	1768	1768
	---	---	---	---	---	---	---

**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the GMT E-4 in FY80, the estimates are:

End Strength	390	(Projected number of men at end of FY)
Mean LOS	2.99	(Average Length of Service)
Manpower Requirements	524	(CNO estimates of number required)
End Strength Status	-25.57	(Percentage over or under requirements)

## GUNNER'S MATE (TECHNICIAN) (GMT)



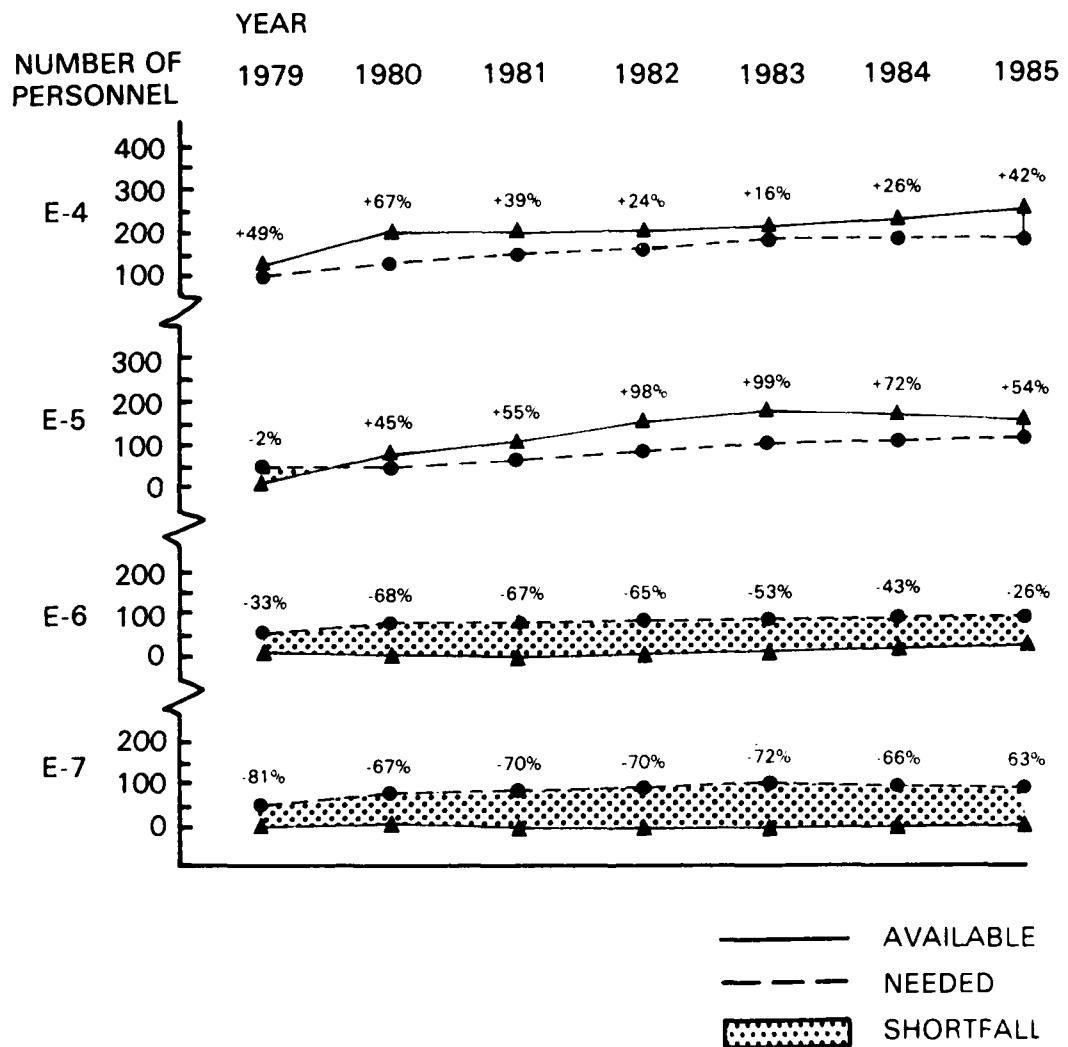
GAS TURBINE SYSTEM TECHNICIAN (ELEC) (GSE)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	179 2.03	193 1.65	209 1.92	268 1.94	292 2.17	302 2.20	302 2.39
E-4	148 2.24	219 1.69	224 1.58	219 1.50	227 1.48	250 1.54	281 1.62
	99 49.49	131 67.18	161 39.13	177 23.73	196 15.82	198 26.26	198 41.92
E-5	40 9.17	81 5.75	135 4.07	180 3.79	199 3.85	193 4.13	173 4.48
	41 -2.44	56 44.64	87 55.17	91 97.80	100 99.00	112 72.32	112 54.46
E-6	42 13.57	26 12.92	28 11.61	30 9.20	40 7.60	55 7.01	72 6.60
	63 -33.33	82 -68.29	86 -67.44	86 -65.12	86 -53.49	97 -43.30	97 -25.77
E-7	12 14.50	28 14.79	28 14.75	29 14.81	28 14.00	33 13.83	36 13.17
	63 -80.95	84 -66.67	92 -69.57	97 -70.10	101 -72.28	97 -65.98	97 -62.89
E-8							
E-9							
E-4/9	242 5.96	354 4.48	415 3.95	458 3.75	494 3.64	531 3.81	562 3.88
	266 -9.02	353 0.28	426 -2.58	451 1.55	483 2.28	504 5.36	504 11.51
Total	421 4.29	547 3.48	624 3.27	726 3.08	786 3.09	833 3.23	864 3.36
	266 ---	353 ---	426 ---	451 ---	483 ---	504 ---	504 ---

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the GSE E-4 in FY80, the estimates are:

End Strength	219	(Projected number of men at end of FY)
Mean LOS	1.69	(Average Length of Service)
Manpower Requirements	131	(CNO estimates of number required)
End Strength Status	67.18	(Percentage over or under requirements)

## GAS TURBINE SYSTEM TECHNICIAN (ELECTRICAL) (GSE)



GAS TURBINE SYSTEM TECHNICIAN (MECH) (GSM)

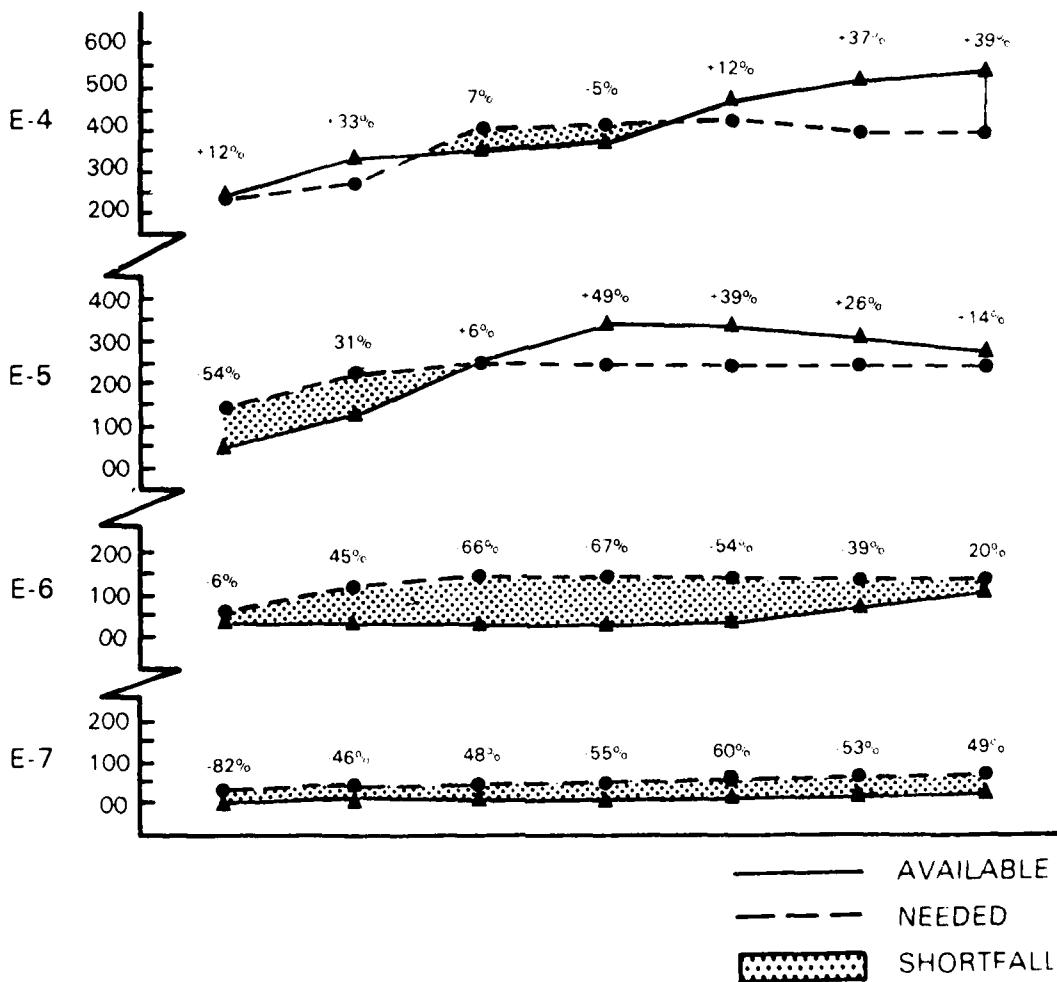
Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	271 1.91	257 1.57	232 1.70	259 1.48	274 1.73	339 2.05	354 2.39
E-4	273 1.91	360 1.83	376 1.92	397 1.94	491 2.07	535 2.23	545 2.38
	243 12.35	270 33.33	403 -6.70	417 -4.80	437 12.36	391 36.83	391 39.39
E-5	78 8.73	151 4.88	261 3.83	366 3.87	359 4.47	319 5.16	289 5.48
	168 -53.57	220 -31.36	246 6.10	246 48.78	258 39.15	253 26.09	253 14.23
E-6	81 14.45	64 13.31	51 11.97	52 10.00	74 8.31	93 7.65	122 7.63
	86 -5.81	117 -45.30	150 -66.00	156 -66.67	162 -54.32	152 -38.82	152 -19.74
E-7	11 14.95	44 15.57	48 15.69	41 15.45	37 15.09	45 14.83	49 13.83
	60 -81.67	82 -46.34	92 -47.83	92 -55.43	92 -59.78	96 -53.13	96 -48.96
E-8							
E-9							
E-4/9	443 5.73	619 4.74	36 4.19	856 3.90	961 3.95	992 4.25	1005 4.47
	557 -20.47	689 -10.16	891 -17.40	911 -6.04	949 1.26	892 11.21	892 12.67
Total	714 4.28	876 3.81	968 3.60	1115 3.34	1235 3.46	1331 3.69	1359 3.92
	557 -----	689 -----	891 -----	911 -----	949 -----	892 -----	892 -----

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the CSM E-4 in FY80, the estimates are:

End Strength	360	(Projected number of men at end of FY)
Mean LOS	1.83	(Average Length of Service)
Manpower Requirements	270	(CNO estimates of number required)
End Strength Status	33.33	(Percentage over or under requirements)

## GAS TURBINE SYSTEM TECHNICIAN (MECHANICAL) (GSM)

NUMBER OF PERSONNEL	YEAR	1979	1980	1981	1982	1983	1984	1985
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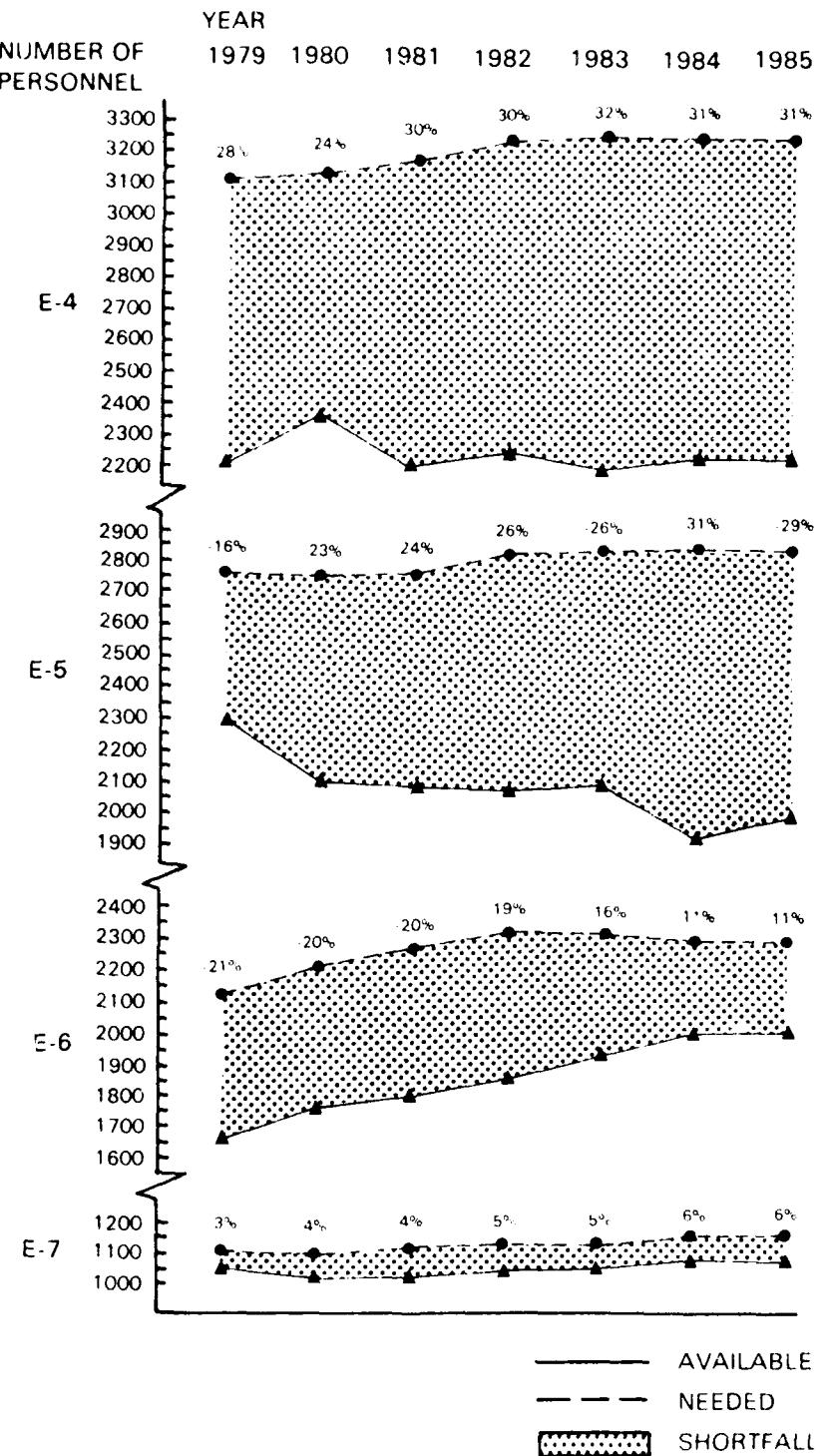
HULL MAINTENANCE TECHNICIAN (HT)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	6497 1.72	6466 1.60	6277 1.63	6428 1.52	6466 1.61	6348 1.62	6145 1.64
	---	---	---	---	---	---	---
	2230 3.08	2390 3.06	2232 3.21	2271 3.17	2200 3.19	2242 3.18	2234 3.24
	3110 -28.30	3131 -23.67	3171 -29.61	3232 -29.73	3250 -32.31	3256 -31.14	3256 -31.39
E-5	2314 5.39	2128 5.60	2104 5.57	2084 5.63	2110 5.67	1965 5.71	2029 5.73
	2770 -16.46	2765 -23.04	2782 -24.37	2822 -26.15	2841 -25.73	2851 -31.08	2851 -28.83
E-6	1689 10.35	1784 9.92	1824 9.63	1885 9.62	1961 9.70	2041 9.83	2049 10.06
	2130 -20.70	2219 -19.60	2281 -20.04	2327 -18.99	2332 -15.91	2303 -11.38	2303 -11.03
E-7	1075 15.63	1052 15.48	1069 15.32	1076 15.22	1077 15.20	1101 15.16	1102 15.12
	1110 -3.15	1100 -4.36	1119 -4.47	1130 -4.78	1130 -4.69	1173 -6.14	1173 -6.05
E-8	198 19.88	206 19.73	212 19.50	211 19.51	219 19.39	220 19.39	222 19.02
	218 -9.17	230 -10.43	236 -10.17	235 -10.21	244 -10.25	247 -10.93	247 -10.12
E-9	79 23.07	82 23.18	88 23.01	88 23.10	87 23.03	85 23.03	87 23.14
	98 -19.39	101 -18.81	105 -16.19	105 -16.19	103 -15.53	101 -15.84	101 -13.86
E-4/9	7585 7.83	7642 7.74	7529 7.83	7615 7.83	7654 7.92	7654 8.01	7723 8.08
	9436 -19.62	9546 -19.95	9694 -22.33	9851 -22.70	9900 -22.69	9931 -22.93	9931 -22.23
Total	14082 5.01	14108 4.93	13806 5.01	14043 4.94	14120 5.03	14002 5.11	13868 5.22
	9436 ----	9546 ----	9694 ----	9851 ----	9900 ----	9931 ----	9931 ----

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the HT E-4 in FY80, the estimates are:

End Strength	2390	(Projected number of men at end of FY)
Mean LOS	3.06	(Average Length of Service)
Manpower Requirements	3131	(CNO estimates of number required)
End Strength Status	-23.67	(Percentage over or under requirements)

## HULL MAINTENANCE TECHNICIAN (HT)



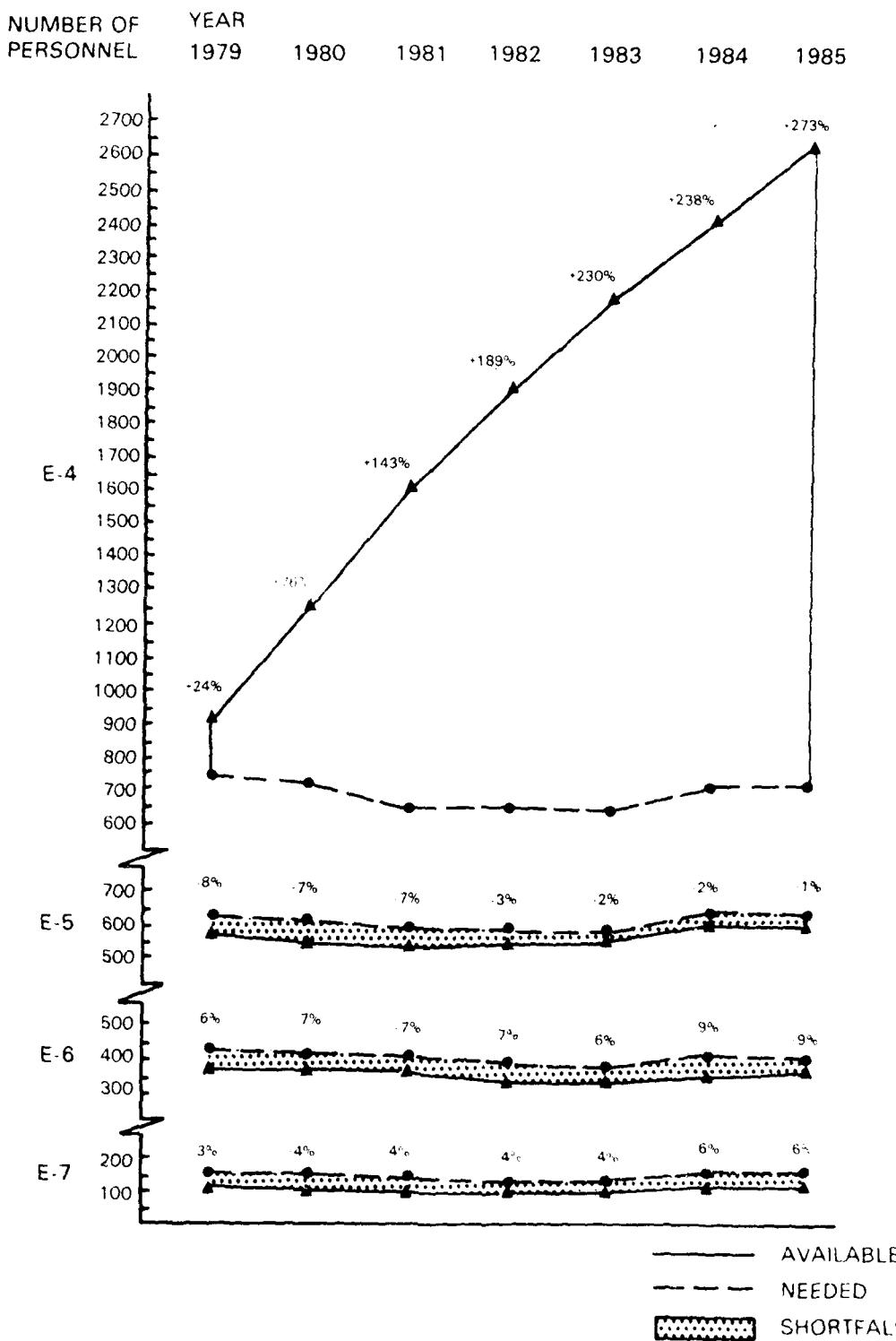
## MISSILE TECHNICIAN (MT)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	296 1.70	359 2.27	448 2.48	312 2.81	597 2.98	643 3.34	715 3.62
	----	----	----	----	----	----	----
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E-4	939 1.59	1265 1.59	1621 1.91	1978 2.23	2190 2.58	2415 2.96	2664 3.31
	756 24.21	718 76.18	668 142.66	666 189.49	664 229.82	715 237.76	715 272.59
E-5	591 5.02	569 5.28	551 5.52	578 5.54	581 5.43	618 4.85	624 5.12
	640 -7.66	611 -6.87	593 -7.08	597 -3.18	595 -2.35	633 -2.37	633 -1.42
E-6	389 9.88	381 10.11	378 10.14	359 10.48	353 10.43	382 10.42	382 10.79
	415 -6.27	410 -7.07	405 -6.67	384 -6.51	376 -6.12	418 -8.61	418 -8.61
E-7	154 15.21	153 15.56	152 15.46	150 15.48	150 15.41	170 15.06	170 15.59
	159 -3.14	160 -4.37	159 -4.40	157 -4.46	157 -4.46	181 -6.08	181 -6.08
E-8	46 18.26	44 18.91	45 19.14	46 19.37	47 19.01	49 18.64	50 18.68
	50 -10.00	49 -10.20	50 -10.00	51 -9.80	52 -9.62	55 -10.91	55 -9.09
E-9	21 21.12	20 21.60	21 22.21	21 22.69	21 23.31	24 23.42	24 24.17
	25 -16.00	25 -20.00	26 -19.23	25 -16.00	25 -16.00	28 -14.29	28 -14.29
E-4/9	2139 5.56	2432 5.15	2768 4.93	3082 4.85	3342 4.84	3658 4.97	3914 5.19
	2045 7.60	1973 3.26	1901 45.61	1880 63.94	1869 78.81	2030 80.20	2030 92.81
Total	1735 5.09	1791 4.78	3216 4.59	3594 4.56	3939 4.56	4301 4.72	4629 4.95
	2015 ----	1973 ----	1901 ----	1880 ----	1869 ----	2030 ----	2030 ----

Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the MT E-4 in FY80, the estimates are:

End Strength	1265	(Projected number of men at end of FY)
Mean LOS	1.59	(Average Length of Service)
Manpower Requirements	718	(CNO estimates of number required)
End Strength Status	76.18	(Percentage over or under requirements)

## MISSILE TECHNICIAN (MT)



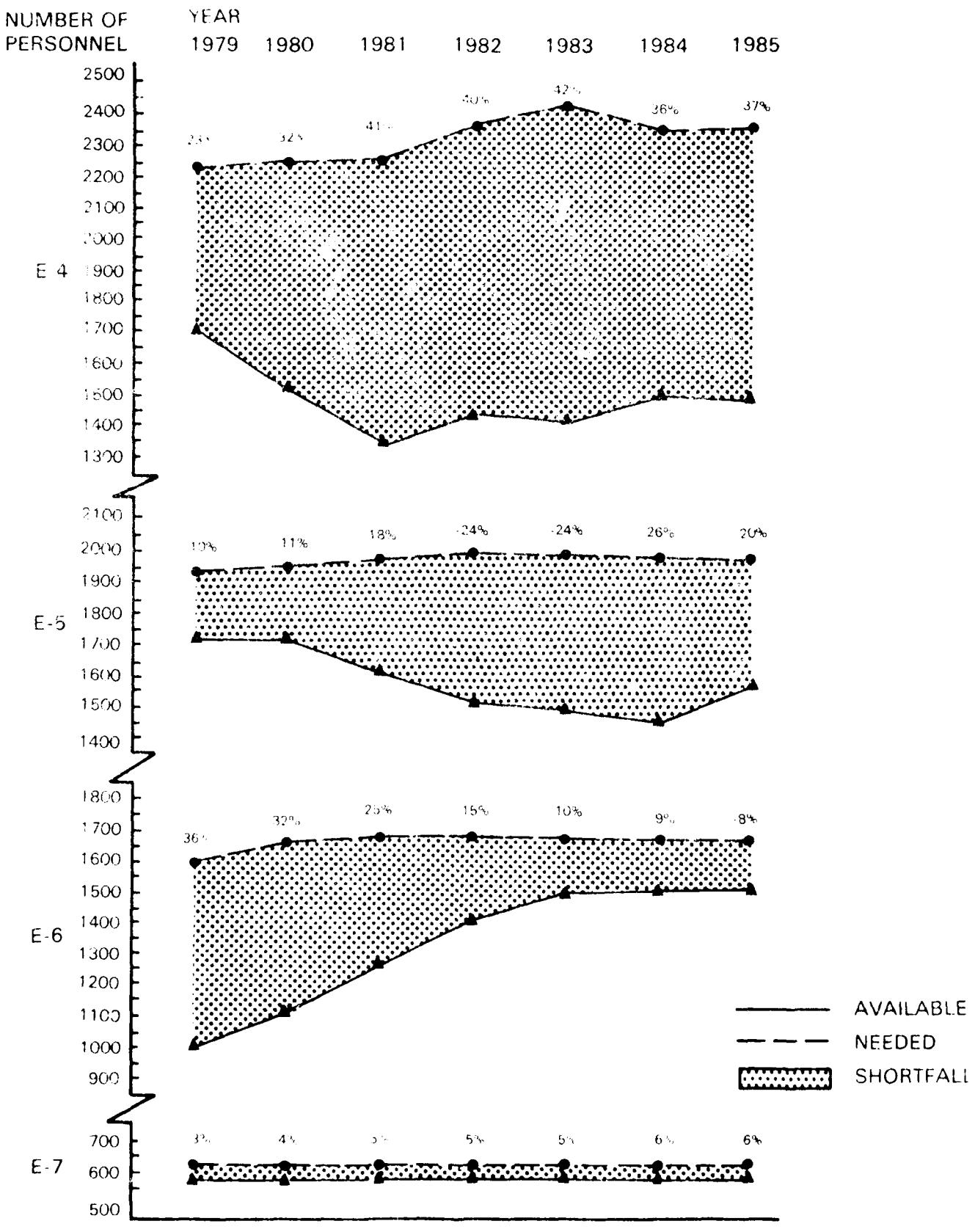
OPERATIONS SPECIALIST (OS)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	3048 1.75	3101 1.52	3137 1.55	3275 1.52	3356 1.63	3267 1.63	3194 1.71
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---	1715 3.17	1526 3.15	1351 3.17	1443 3.04	1421 3.07	1506 3.11	1487 3.15
2216	2257	2285	2389	2437	2366	2366	
-22.61	-32.39	-40.88	-39.60	-41.69	-36.35	-37.15	
E-4	1738 5.22	1736 5.41	1624 5.50	1520 5.51	1505 5.48	1464 5.52	1584 5.50
1937	1952	1984	1995	1985	1981	1981	
-10.27	-11.07	-18.15	-23.81	-24.18	-26.10	-20.04	
E-5	1015 10.33	1119 9.54	1273 9.05	1424 8.95	1514 9.09	1528 9.52	1535 9.90
1598	1611	1686	1680	1680	1677	1677	
-36.48	-31.66	-34.50	-15.24	-9.88	-8.88	-8.47	
E-6	596 16.52	592 16.53	594 16.27	591 16.20	591 15.73	580 15.63	580 15.37
616	619	622	620	620	617	617	
-3.25	-4.36	-4.50	-4.68	-4.68	-6.00	-6.00	
E-8	173 19.70	170 20.11	171 20.35	170 20.68	171 20.43	163 20.76	165 20.56
190	190	190	190	190	183	183	
-8.95	-10.53	-10.00	-10.53	-10.00	-10.93	-9.84	
E-9	54 23.69	54 24.39	55 25.10	56 25.50	58 25.43	59 25.30	61 24.02
67	66	66	66	68	70	70	
-19.40	-18.18	-16.67	-15.16	-14.71	-15.71	-12.86	
E-4/9	5291 7.47	5207 7.58	5068 7.75	5204 7.69	5260 7.73	5300 7.78	5412 7.83
6624	6736	6833	6940	6980	6894	6894	
-20.12	-22.70	-25.83	-25.01	-24.64	-23.12	-21.50	
Total	8339 5.38	8308 5.32	8205 5.38	8479 5.31	8616 5.35	8567 5.44	8636 5.36
	6624	6736	6833	6940	6980	6894	6894
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**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the OS E-7 in FY85, the estimates are:

End Strength	1526	(Projected number of men at end of FY)
Mean LOS	3.15	(Average Length of Service)
Manpower Requirements	2257	(CNO estimates of number required)
End Strength Status	-32.39	(Percentage over or under requirements)

## OPERATIONS SPECIALIST (OS)



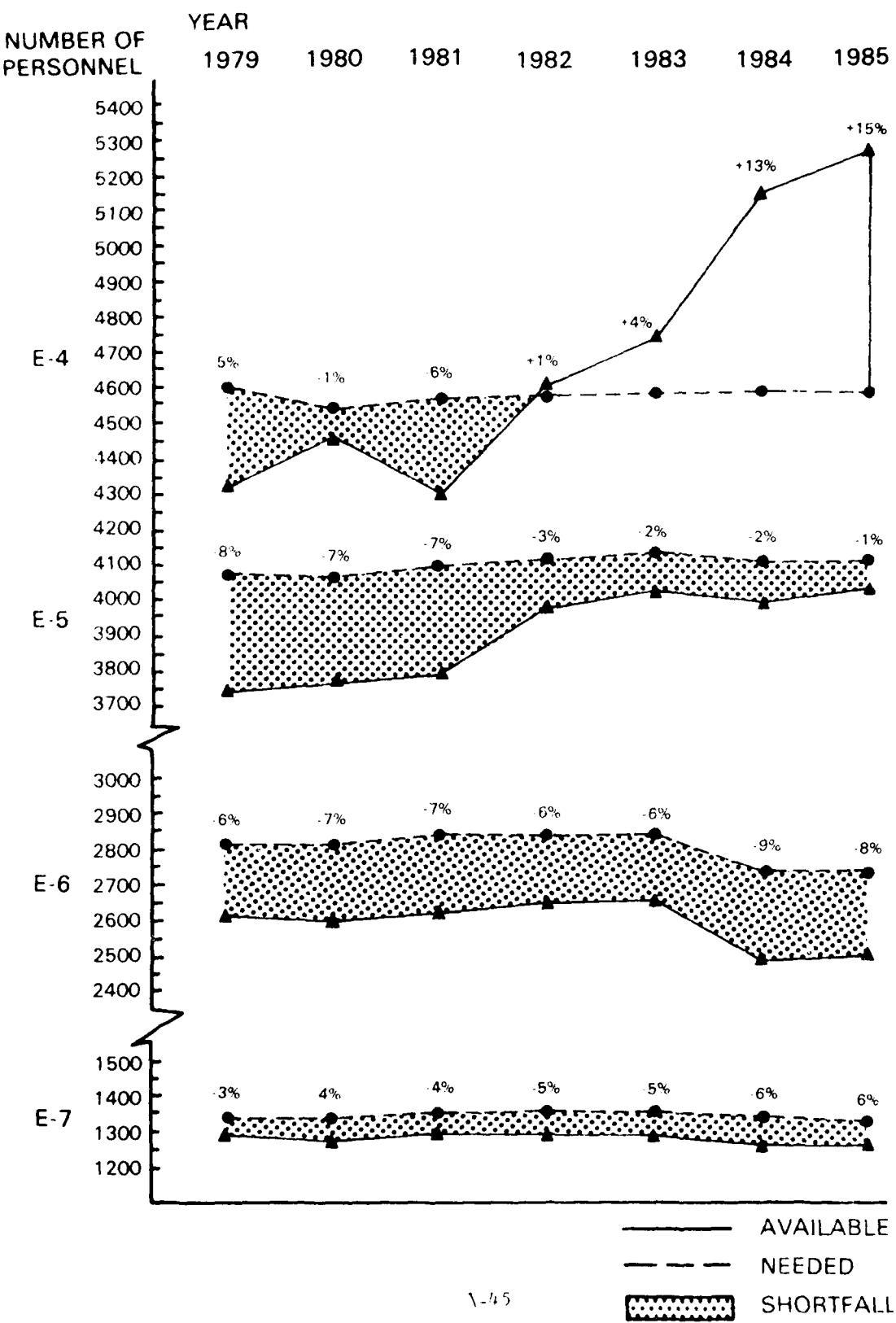
## RADIOMAN (RM)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	5797 1.73	6351 1.51	6599 1.61	6964 1.59	7132 1.69	6953 1.68	6925 1.75
E-4	4365 3.06	4488 3.01	4329 3.04	4617 2.98	4763 3.06	5183 3.16	5287 3.33
	4600 -5.11	4551 -1.38	4584 -5.56	4592 0.54	4597 3.61	4598 12.72	4598 14.98
E-5	3778 6.41	3801 6.26	3814 6.01	3996 5.88	4044 5.81	4017 6.07	4053 6.15
	4094 -7.72	4081 -6.86	4100 -6.98	4129 -3.22	4144 -2.41	4114 -2.36	4114 -1.42
E-6	2641 13.68	2618 13.17	2657 12.44	2675 12.06	2687 11.80	2509 12.06	2520 12.11
	2815 -6.18	2818 -7.10	2850 -6.77	2859 -6.44	2869 -6.34	2753 -8.86	2753 -8.46
E-7	1308 17.92	1298 17.75	1310 17.69	1305 17.68	1309 17.58	1271 17.41	1272 17.15
	1350 -3.11	1357 -4.35	1370 -4.38	1370 -4.74	1373 -4.66	1354 -6.13	1354 -6.06
E-8	359 20.37	355 20.41	364 20.41	364 20.54	363 20.61	364 20.64	367 20.69
	395 -9.11	396 -10.35	405 -10.12	405 -10.12	403 -9.93	409 -11.00	409 -10.27
E-9	116 22.78	119 22.73	122 22.51	122 22.51	123 22.76	125 22.78	126 22.90
	144 -19.44	146 -18.49	146 -16.44	146 -16.44	146 -15.75	147 -14.97	147 -14.29
E-4/9	12567 8.52	12679 8.26	12596 8.14	13079 7.86	13289 7.76	13469 7.68	13625 7.73
	13398 -6.20	13349 -5.02	13455 -6.38	13501 -3.13	13532 -1.80	13375 0.70	13375 1.87
Total	18364 6.48	19030 6.01	19195 5.89	20043 5.68	20421 5.64	20422 5.64	20550 5.72
	13398	13349	13455	13501	13532	13375	13375
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Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the RM E-4 in FY80, the estimates are:

End Strength	4488	(Projected number of men at end of FY)
Mean LOS	3.01	(Average Length of Service)
Manpower Requirements	4551	(CNO estimates of number required)
End Strength Status	-1.38	(Percentage over or under requirements)

## RADIOMAN (RM)



SONAR TECHNICIAN (Surface) (STG)

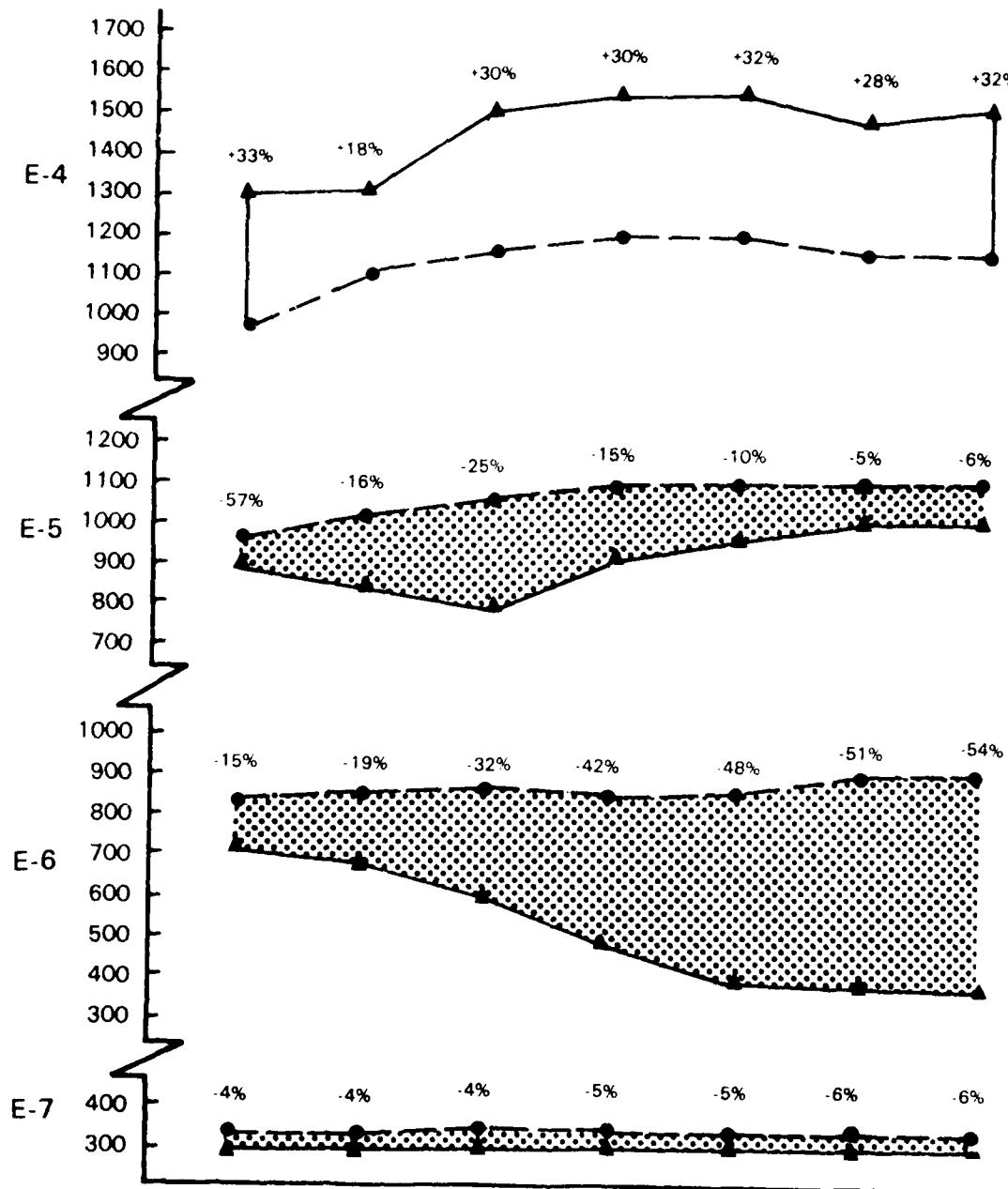
Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	1381 2.37	1509 2.54	1283 2.76	1351 2.68	1298 2.88	1331 2.98	1263 3.32
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E-4	1334 1.63	1346 1.44	1544 1.59	1570 1.65	1594 1.70	1525 1.61	1570 1.71
	1000	1141	1190	1213	1212	1189	1189
	33.40	17.97	29.75	29.43	31.52	28.26	32.04
E-5	934 4.14	871 3.99	813 3.70	945 3.62	1001 3.61	1056 3.74	1051 3.72
	986	1043	1091	1107	1117	1114	1114
	-5.27	-16.49	-25.48	-14.63	-10.38	-5.21	-5.66
E-6	733 9.70	706 9.10	612 8.70	505 8.49	456 7.62	445 6.84	416 6.41
	858	876	894	875	877	903	903
	-14.57	-19.41	-31.54	-42.29	-48.00	-50.72	-53.93
E-7	330 15.17	325 15.12	335 15.09	334 15.22	334 15.20	327 14.30	327 12.93
	342	340	350	350	350	348	348
	-3.51	-4.41	-4.29	-4.57	-4.57	-6.03	-6.03
E-8	110 19.03	116 18.82	117 18.74	116 18.21	116 18.16	122 18.29	123 18.24
	128	130	130	129	128	137	137
	-14.06	-10.77	-10.00	-10.08	-9.38	-10.95	-10.22
E-9	28 23.46	22 23.27	21 22.31	21 22.40	21 22.02	21 22.36	22 22.59
	26	26	26	25	25	25	25
	7.69	-15.38	-19.23	-16.00	-16.00	-16.00	-12.00
E-4/9	3469 6.03	3386 5.74	3442 5.38	3491 5.15	3522 4.95	3496 4.81	3509 4.63
	3340 3.86	3556 -4.78	3681 -6.49	3699 -5.62	3709 -5.04	3716 -5.92	3716 -5.57
Total	4850 4.99	4895 4.76	4725 4.67	4842 4.46	4820 4.39	4827 4.31	4772 4.28
	3340	3556	3681	3699	3709	3716	3716
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Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the STG E-4 in FY80, the estimates are:

End Strength	1346	(Projected number of men at end of FY)
Mean LOS	1.44	(Average Length of Service)
Manpower Requirements	1141	(CNO estimates of number required)
End Strength Status	17.97	(Percentage over or under requirements)

## SONAR TECHNICIAN (SURFACE) (STG)

NUMBER OF PERSONNEL	YEAR	1979	1980	1981	1982	1983	1984	1985
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————— AVAILABLE  
 - - - - - NEEDED  
 ■■■■■ SHORTFALL

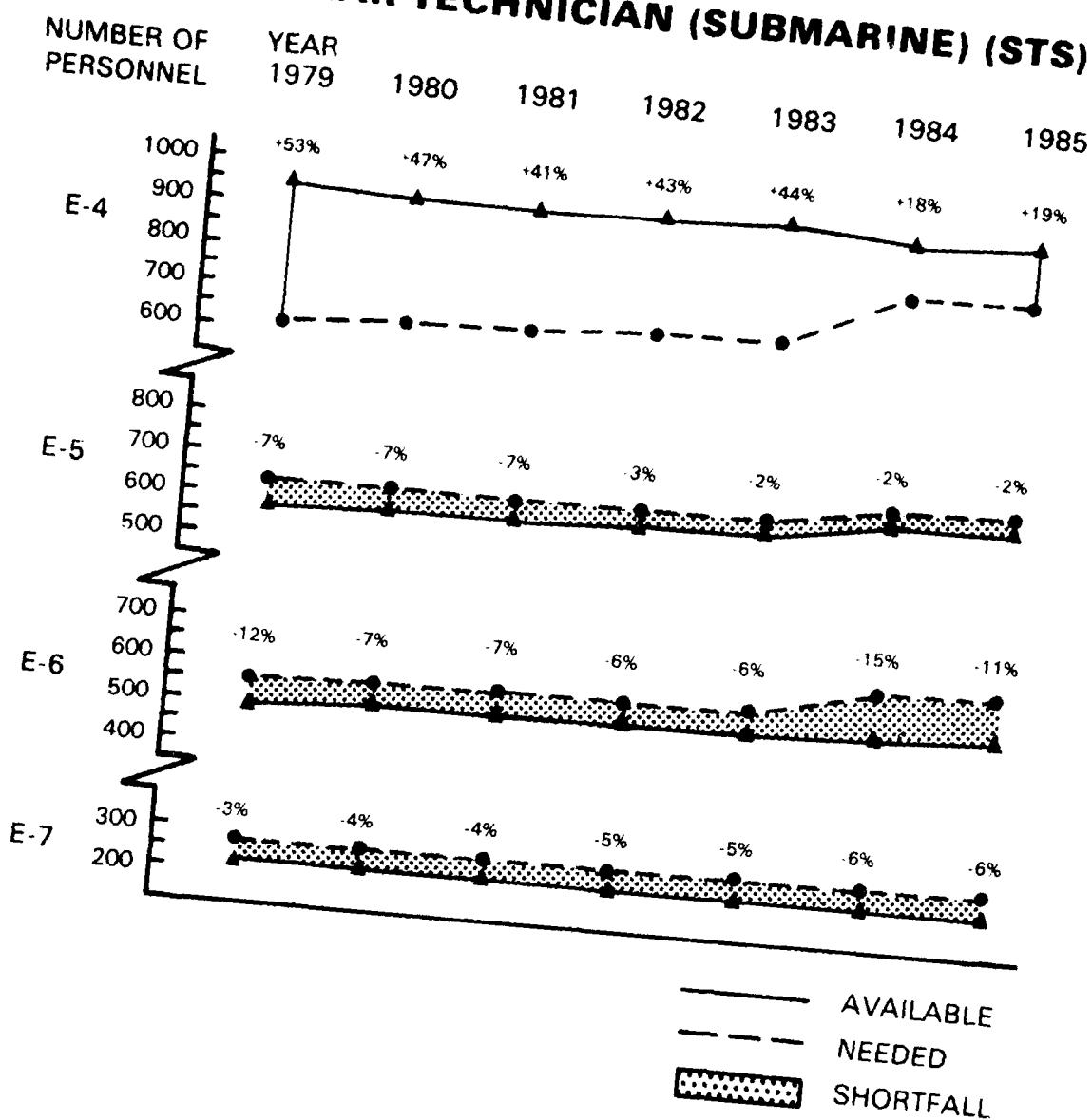
SONAR TECHNICIAN (Submarine) (STS)

<b>Rate</b>	<b>FY 79</b>	<b>FY 80</b>	<b>FY 81</b>	<b>FY 82</b>	<b>FY 83</b>	<b>FY 84</b>	<b>FY 85</b>
E-1/3	960 1.78	1389 1.78	1566 2.05	1804 2.12	1876 2.29	1923 2.42	1899 2.61
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E-4	978 2.12	958 2.20	943 2.13	968 2.17	972 2.18	943 2.17	952 2.23
639	651	667	675	674	800	800	
53.05	47.16	41.38	43.41	44.21	17.87	19.00	
E-5	599 4.55	602 4.43	604 4.39	631 4.37	638 4.30	680 4.23	686 4.30
646	646	650	652	653	697	697	
-7.28	-6.81	-7.09	-3.22	-2.30	-2.44	-1.58	
E-6	516 7.90	547 7.85	553 7.82	554 7.87	553 7.88	560 7.86	585 7.80
587	589	594	592	591	655	655	
-12.10	-7.13	-6.90	-6.42	-6.43	-14.50	-10.69	
E-7	266 13.77	261 13.94	263 14.09	262 14.05	262 14.07	260 13.65	260 13.68
274	273	275	275	275	277	277	
-2.92	-4.40	-4.36	-4.73	-4.73	-6.14	-6.14	
E-8	127 17.91	129 18.22	131 18.41	134 18.58	134 18.40	153 18.19	154 18.29
140	144	146	150	151	172	172	
-9.29	-10.42	-10.27	-10.67	-11.26	-11.05	-10.47	
E-9	22 21.36	23 22.37	24 22.79	25 23.66	26 24.54	27 25.35	29 25.95
28	28	28	29	29	31	31	
-21.43	-17.86	-14.19	-13.79	-10.34	-12.90	-6.45	
E-4/9	2508 6.09	2520 6.18	2518 6.22	2574 6.21	2585 6.19	2623 6.23	2666 6.29
2314	2331	2360	2373	2373	2632	2632	
8.38	8.11	6.69	8.47	8.93	-9.34	-1.29	
Total	3468 4.99	3919 4.62	3984 4.61	4378 4.61	4546 4.53	4546 4.62	4565 4.76
7314	7611	7630	7633	7633	7632	7632	
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Explanation: Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the E-4 in FY80, the estimates are:

End Strength	968	(Projected number strength at end of FY)
Mean LOS	1.78	(Average length of service)
Manpower Requirements	601	(NCO estimate of number required)
End Strength Status	47.16	(Percentage over or under requirements)

## SONAR TECHNICIAN (SUBMARINE) (STS)



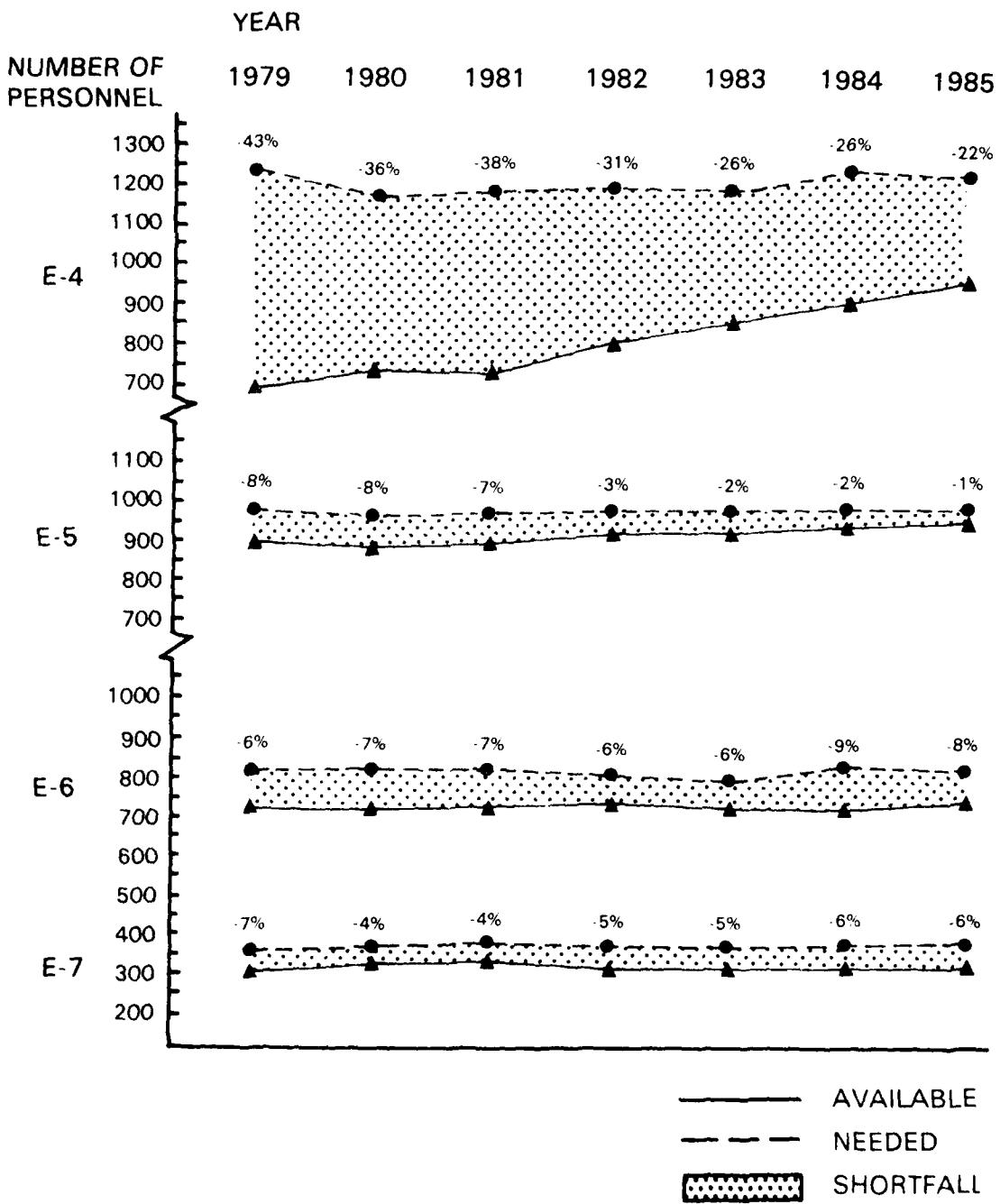
## TORPEDOMAN'S MATE (TM)

Rate	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
E-1/3	1581 1.64	1746 1.51	1790 1.60	1875 1.53	1915 1.63	1890 1.67	1853 1.75
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---	---	---	---	---	---	---	---
E-4	711 2.98	758 3.03	738 3.13	832 3.07	876 3.16	913 3.16	965 3.37
1248	1189	1199	1200	1191	1239	1239	
-43.03	-36.25	-38.45	-30.67	-26.45	-26.31	-22.11	
E-5	909 5.72	898 5.43	906 5.19	943 5.24	948 5.36	959 5.41	968 5.47
985	974	974	974	972	982	982	
-7.72	-7.80	-6.98	-3.18	-2.47	-2.34	-1.43	
E-6	758 12.91	757 12.43	765 11.70	753 11.26	745 10.95	752 10.80	756 10.86
808	815	820	804	795	825	825	
-6.19	-7.12	-6.71	-6.34	-6.29	-8.8	-8.36	
E-7	341 17.83	355 17.86	368 17.69	356 17.60	356 17.70	351 17.68	351 17.28
365	371	385	373	373	374	374	
-6.58	-4.31	-4.42	-4.56	-4.56	-6.15	-6.15	
E-8	85 20.69	72 21.43	71 21.37	71 21.44	71 21.19	74 21.22	74 20.47
80	80	80	80	80	83	83	
6.25	-10.00	-11.25	-11.25	-11.25	-10.84	-10.84	
E-9	68 22.90	72 23.51	75 24.30	76 24.83	76 24.74	72 24.76	74 24.42
82	88	90	90	90	85	85	
-17.07	-18.18	-16.67	-15.56	-15.56	-15.29	-12.94	
E-4/9	2872 9.22	2912 8.98	2923 8.83	3031 8.46	3072 8.36	3121 8.25	3188 8.20
3568	3517	3548	3521	3501	3588	3588	
-19.51	-17.20	-17.62	-13.92	-12.25	-13.02	-11.15	
<b>Total</b>	4453 6.53	4658 6.18	4713 6.08	4906 5.81	4987 5.78	5011 5.77	5041 5.83
	3568	3517	3548	3521	3501	3588	3588
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**Explanation:** Within the cells for each rate and rating by fiscal year, the data are presented as follows; for example, for the TM E-4 in FY80, the estimates are:

End Strength	758	(Projected number of men at end of FY)
Mean LOS	3.03	(Average Length of Service)
Manpower Requirements	1189	(CNO estimates of number required)
End Strength Status	-36.25	(Percentage over or under requirements)

## TORPEDOMAN'S MATE (TM)



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